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EDITORIAL

FORAND BILL

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H.R. 9467 was introduced into the last session of Congress by Rep. Aime Forand (Dem. R.I.). It represents the second major extension of the compulsory Social Security, an act which forms the foundation of the Welfare State, U.S.A. The first extension was H.R. 7225 which makes disabled persons past 50 years of age eligible for Federal Social Security benefits.

The Forand bill provides for hospitalization and specified surgical benefits, if the surgical services are performed by a Board-certified surgeon or a member of the College of Surgeons. (A nice built-in method of creating a schism in the medical profession.)

About 13,000,000 Americans will be eligible for its benefits and it will be financed by all persons who are now on the Social Security rolls, with the employee and the employer each paying an additional 2 to 3 per cent tax. Thus, the total social security contribution will be about 9½ per cent of the earned income subject to social security tax. It also provides an increase of this earned income subject to social security tax from $4,200 to $6,000 per year.

If this bill should become law, socialism in the United States will be assured because it is estimated that within 25 years, 30 to 40,000,000 Americans will be dependent upon the government for their health care and practically all persons will receive Social Security checks. The Marxian philosophy of individual dependence upon the central government will have been adopted through the democratic processes of a Republic. NO WONDER KHRUSHCHEV RECENTLY STATED THAT WAR AND REVOLUTION WERE NO LONGER NECESSARY TO ACHIEVE THE OBJECTIVES OF COMMUNISM.

Organized medicine has much more at stake than the fear of professional regimentation under socialized medicine. Organized medicine must fear the ravages of all of the evils of socialism in a totalitarian state.

The medical profession represents an informed group of professional persons who not only know that health care under a regimented system of government control soon deteriorates into an impersonal, unsympathetic trade-like service, but it also knows as a body of responsible citizens, that the passage of the Forand bill would mean the destruction of the last vestige of individual responsibility. By this I mean that our enormous inheritance tax places in the hands of the government the right to distribute a substantial

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part of our personal lifetime earnings to those in whom we have no personal interest or who do not deserve such a gratuity; our confiscatory income tax destroys any possibility of accumulating enough wealth which could be used as risk capital, the means by which this nation has developed the highest standard of living of any nation in the world; and now the proposed expanded social security act will soon make the government largely responsible for the health care of this nation, as well as the custodian of the "savings" program for all of its citizens, a program which, because of its compulsory nature, is based on the thesis that Americans are incapable of taking care of themselves.

WHAT TO DO? Organized medicine has done poorly in the national political ring. It has won only one major national political battle, the defeat of the Wagner-Murray-Dingell Bill in 1948. It immediately broke training after that victory and has not won a bout since. The worst defeat was the acceptance of the principle that Health, Education, and Welfare are close relatives and should be combined under one cabinet post. Oscar Ewing could not have done it better because all one needs to create a welfare state is control of education and health; Bismarck, Lloyd George, and Lenin all proved that.

We must revitalize the force which was mobilized to defeat the Wagner-Murray-Dingell Bill. We must join forces with enlightened groups such as the U.S. Chamber of Commerce and our numerous voluntary insurance carriers in the United States. We must tell the American people that they are selling their birthright for a mess of pottage. And, finally and most important of all, we must make an all-out effort to analyze the health needs of the aging in order to provide on a voluntary but individual basis for the deficiencies which are present.

Special Articles

MEDICAL EDUCATION FOR GERONTOLOGY

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The "problems of aging" constitute a challenge that is not new. To Plato and Socrates they had an intensely personal significance. Until very recently they were largely more personal than community in character. An unusual interest is aroused now in everyone because of the enormity of the problem. Material concerning the subject matter has increased tremendously in the last few years. As in many rapidly growing ventures definitions, rules, needs, and objectives become somewhat befogged because of the speed of the forward momentum.

Gerontology according to the dictionary is "the scientific study of the phenomena of old age and aging." Still quoting from the dictionary, the phenomena of old age and aging include the following meanings—"To become old, to grow old, to show marks of age, to undergo change with age or lapse of time, to suffer with the lapse of time a diminution of essential qualities or forces as an incandescent light or transformer ages, to become mellow or ripe or to acquire a desirable quality by standing undisturbed for some time as wine or varnish ages."

Thus it can be seen that "old age" and "aging" presented many variations in meaning before gerontology became a problem. Most of these concepts find good usage when applied to the failing lamp bulb or the mellow wine. They convey a total picture the results of which are not due to time alone.

"To become old" and "to grow older" certainly are meaningless phrases and do not constitute a true criteria of meaning in the various decades of even our own generation. The individual described as old at the beginning of this century would probably now resent such a classification.

"To show the marks of age" is even more controversial as there is less and less agreement on what constitute the marks of aging. Since these so-called stigmata of aging have been subjected to scientific scrutiny we are finding that more often than not they are due to something other than the passage of time.

"A diminution of essential qualities or forces as an incandescent lamp or transformer ages" raises the question as to whether the author had in mind a lamp packed in preserving oil or one in use. The difference in the diminution of essential qualities that would be produced by this variation in environment would certainly change the meaning of the phrase.

"To acquire a desirable quality by standing undisturbed for some time as wine ages" is to place emphasis on the factor that has been convenient for expressions of a degree of elegance but which is probably least effective in obtaining the qualities desired. It seems that all would agree that the temperature and light of the wine cellar, the regular turning of the bottles and the many other items of loving care must contribute something to the development of the desirable qualities in good wine. Elusive suggestion resides here for the solution of many of our gerontologic problems.

"To undergo change with age or lapse of time" comes closer to stating a scientific truth. Many of the changes now attributed to the passage of time are due to factors that act in time and not to time alone. We know practically nothing of these changes that might be wrought by time itself. This may all sound as senseless as the argument of the philosophers of old as to how many angels could stand on the point of a pin—but we hope the object will become clear later on.

What I am attempting to say is that none of these concepts fulfills the criteria of a logical definition for our present subject matter. Such a definition should proceed from a single point of view and be all inclusive and/or exclusive.

Dr. Edward J. Stieglitz in his new book, "Geriatric Medicine," calls "aging" a part of living. All living matter ages, and as it ages, it changes. Aging involves everyone of the innumerable aspects of life. It begins with conception and ends only with death. Thus growth, development and maturation are just as much the consequences of the occult processes of aging as are the atrophies and degeneration of senility. Evolution and involution are both affected by aging; pediatrics and geriatrics are closer than many realize. Gerontology is the science of aging in its broadest sense."

Dr. Henry Simms of Columbia University suggests the following workable definition of aging as synonymous with senescence—"The process of aging consists of those changes with time which result in progressive loss of abilities and in progressive increase in death rate."

Dr. P. B. Medawar of University College, London, says, "It will be convenient for the 17th century word 'senescence' to stand for the deterioration that accompanies aging, and to leave aging itself to stand for merely growing old."

One could go on quoting definitions from the different authors. By and large there would be some major or minor variance in their concepts of aging and senescence. These would be subject to the same type evaluation and critical analysis as the dictionary material.

One wonders if a sharper delineation of fundamental terms would not lead to a better understanding of some of the problems of gerontology and permit a more enlightened approach to their solutions. Scientists as well as football coaches may be penalized for not paying enough attention regularly to fundamentals.

As every scientist realizes the thing he knows, or thinks he knows, constitutes probably the greatest hurdle he must get over in his efforts to arrive at the truth. If it is possible now to set aside such thoughts as outlined in the previous definitions and proceed to examine the material at hand with the tools of logic and experience, we will make an effort to explain the reasons for this paper.

Development from the lower to the higher forms of life has meant in every case the establishment of more stable internal and/or external environment. That type of homeostasis of Cannon which has tended to preserve the species in a finer condition for a longer time is a good example. As Dr. J. H. Means says, "The whole process of living, in its material realm, consists in everlasting adjustment to environment. Adjustment includes not merely the erection of defenses against hurtful influences of environment but also the alteration of environment by the organism to make it more suitable for the organism. Good adjustment is health; poor adjustment is illness. Successful adjustment is integration; unsuccessful is disintegration. When adjustment fails completely life ceases or if you prefer, death takes place."

In spite of this trend through ages of time, the competition for survival all along the line has been so intense that the thus termed problems of gerontology did not exist in any practical sense. Those unprotected from natural elements, natural enemies and the competition from friendly neighbors were eliminated in a high percentage of cases. Truly, only the fittest and the fortunate lived to contribute much to the race.

Sometime, somewhere in the dim unrecorded past something happened. What it was and how it will be described will depend upon the discipline making the investigation. The scientist may say it was the first effort of a new creature to find the eternal truth. Religious disciplines will point to the birth of religious principles, especially the concept of the brotherhood of man. In any case, man by his own acts began to interfere with the balance of power and natural selec-

tion as maintained by the law of the jungle. The moment he did this certain individuals were given a longer life span. They were unprepared for it. The pace may not have been slowed any, but a helping hand was offered to those who faltered. Those who were unable to carry on in the usual style of the tribe caused a change in the philosophy of living and as their numbers grew became the first gerontologic problem. The great number of individuals involved seems to have interested most of the investigators. Does it not seem, however, that the real problem is the lack of preparation of these individuals for their increased life span rather than the increased number of individuals or the increased number of years? Today's rush to counsel and advise the aging and retiring emphasizes the validity of this concept, but the counselling overlooks the important factors.

This presented a new frontier. It called for a new race of pioneers to map the pathways for the millions who were to come after. As yet there have been very few who have had the vision to meet the challenge. Like the flotsam and jetsam of the deep washed upon the shore or floating in the calmer inlets, most of the present oldsters are being pushed out of the stream of life. Instead of making an effort to extend this age frontier into a land of new experience, enjoyment and compensation they are constantly looking backward as if all life had been left behind them. What this concept appears to fail to take into account is that a great many of these older persons are not looking backwards in any weak sentimental effort to recall the past, but in a blind serious struggle to find themselves. To regain a lost hold on life. Looking backwards is not at all a phenomenon of old age; it is a symptom of spiritual damage or illness that can befall anyone in any walk of life at any time. We associate it with the old because frequently they do not survive it. But age itself does not cause it.

Through sudden changes in the outside world which has been their immediate environment, many persons discover to their surprise and confusion that they are no longer the people they used to be . . . that they have lost touch with the old familiar selves they took for granted and thought they knew so well . . . that the personality that used to swell within their bodies is being crowded out by a perfect stranger or host of strangers . . . that they are suddenly and unexpectedly without identity!

"Know thyself," advised Socrates. "I think, therefore I am," taught Descartes. "I am a part of all that I have met," proclaimed Tennyson's Ulysses. Desperately, the out-of-touch seek to re-establish contact with the old environment in order to become once again, if only for a few moments, the more powerful old self with the strength and know-how to cope with this stranger who seems to be making himself more and more at home inside their skins. Though they may be organically sound at the time of the original environmental change, the increasing ferocity of the struggle to regain the lost identity, and the deterioration it brings in its wake, can lead eventually to the deathbed. The individual changes, perhaps simple in themselves, are compounded with the passing of time. More environmental changes occur in logical succession from the first; still others are by-products of the struggle itself. Like the boy in Sir Walter Scott's 'Lay of the Last Minstrel' who went around crying a heartbroken 'Lost! Lost! Lost!' perpetually in search of himself, many older persons and others too are continually seeking to re-establish contact with the old self from which they have been unexpectedly divorced. Drifting oldsters are not constantly harking back to past years and glories for the sake of recapturing the memories themselves but on the chance of finding a key to the old familiar self—the self that did not know uncertainty. The sureness, the strength, the power generated by the sum total of those past conditions and unrecognized by them at the time are what the Lost Ones seek.

Pioneers of a new gerontologic frontier we may need badly, but true pioneers are whole

people, not half ones. Your uncertain oldster is a half person seeking to become a whole, looking for the lost other half of himself that alone can restore his identity.

For the third time in a century, we are being faced with the prospect of a Lost Generation. But this time it is the old, not the young who are being needlessly sacrificed.

So we come to the inevitable question of "What can we do to prevent this"? and we find ourselves back at the old stand of preparation and education again. Before we can help, though, we must understand. The processes of personality function are far more automatic than either the young or the successful among us like to acknowledge. And the development of what we are pleased to term "character" rests less often upon the strong exercise of free will in heroic choices between the good and the bad than upon selection from among objects or ideas with practically equal appeal to notions of taste, convenience or pleasure. Good character, which probably the majority of our troubled oldsters are credited with possessing, is in a great many instances good without necessarily having developed strength. That is, it is good by habit more than by choice. It takes a character of tremendous strength as well as native wisdom to bridge personality gaps that occur from time to time and even the strongest has an Achilles heel. It takes time and skill to make a proper adjustment when a life has been derailed—time and incentive. Although such derailments occur most frequently in the older years, it would be a mistake to assign their cause arbitrarily to deterioration caused by time. Age frequently has little to do with it. The causes must be sought elsewhere. Our present society, though, and our current lifespan provide in the majority of instances, little incentive and less time for complete re-adjustment. Our oldsters die off before there has been a long enough period to weather the maladjustment. Consequently, the tendency to look back and to live too much in the past is superficially assumed to be part and parcel of the aging process.

But since there is such a marked variation in the commonly named rate of senescence; since our older groups now present more physical and intellectual vigor than a similar group of fifty years ago; since there is at least some evidence of rejuvenation of a few of the more hardy souls who find new mates or new interests in their later years; and since superimposed diseases might well be prevented or modified by the application of certain principles of preventive medicine, we are inclined to believe that the lack of preparation for the increased years and the impact of internal and external environment on the organism is the real cause of degeneration now attributed to the mere passage of years.

Aging is the effect or change produced in the organism or the individual by time and time alone. Each stroke of man's own invention—the clock must be associated with some meaningful change in the organism. To prove this seems to be a most difficult if not impossible task. Even in the laboratory animal this problem is far from simple. It is true that most every factor in an animal's life can be fairly well regulated and stabilized. Changes which occur in time can be said to be associated with the passage of time. Some of these major changes, however, may be due to the fact that the animal is incarcerated in a cage or that there may be some personality differences between him and his tender. In any case, removing all psychosomatic, physical, psychic, bacterial and viral causes for change, we come up with the sum total effects caused by aging. If time produced no effects then the removal of the above causes should produce a situation where immortality would result. It is suggested by Carrel's growing a bit of the heart of a chick embryo that if all environmental factors producing change are controlled the one-celled animal tends to be immortal. This does not mean that the one cell continues to live on unchanged through eons of time but that its

likeness is perpetuated in subsequent daughter cells without leaving behind a corpse. R. E. Tunbridge says it this way, "Alexis Carrel in his experimental work suggested that environmental factors were highly important, if not the most important factor in senescence."

The one-celled animal in the proper media may be said to possess immortality in that the involutionary process of aging is not evident, so long as all environmental factors are controlled. In the light of our concept above they must definitely age, that is, change in some way between the time of one division and the next. Although the proof may be impossible to obtain at the moment there must be some difference between the daughter-cell of one second of age and one of ten minutes of age just before the next division. This must be true since in a controlled environment the division occurs as a function of time and a single cell of a certain specie will have daughter-cells only after the passage of so much time in a controlled environment. To measure this change in a unit of time is probably the purest estimation of the effects of time on protoplasm.

This type of immortality is almost entirely outside the realm of control or direction by the organism. Protection for the individual cell from its environment including its own waste products and continuity of the race rests on the weak reed of environmental stability. Realizing these defects evolution proceeds in the direction of exercising more and more control over these environmental factors. The age of specialization is begun. Groups of cells were set aside to take care of irritability, growth, reproduction and temperature so as to regulate the complex individual's, or community of cells, environment. Thus, potential but hazardous, immortality of the individual cell was sacrificed for what seemed to be less immortality potential but a more certain definite life span. The proof that this was a wise choice lies in the fact that the most complex of all creatures has managed to become the dominant force of the universe while the unstable, uncontrolled environment has kept the one-celled animal at that previous level.

Disease has been described as that state of being out of harmony with one's environment. Bacteria, viruses and malignant growths may disturb the internal environment enough to cause disintegration of the individual. The internal environment, body chemistry, temperature and pulse operate within narrow limits and are only mildly influenced by age. Exposure to environmental stress and physical agents may operate through wider limits but produce their deleterious effects ending in disease just as surely and certainly as do the bacteria. It would seem then that the resulting picture of disease processes would be little affected by age as such except as this particular disease might be influenced by the preponderance of evolutionary or involutionary processes at work at the moment. By now it will be evident that it is suggested that the effects wrought by time and time alone are the same from the start of life to its end and vary only as the protoplasmic substrata varies either as the result of the effect of previous time or stress. That most of the changes associated with so-called senescence or senility are the result of the impact of environmental phenomena both internal and external to which the individual has made a partially satisfactory adjustment. A totally unsatisfactory adjustment results in death. To improve longevity then one is not left with as few tools as seemed to be the case at first glance. We are beginning to understand some of the psychosomatic effects of stress on individual health and happiness. The application of this understanding early in the life of the individual may well bring about better adjustment, better emotional rewards, better health and longer life.

In some areas of medicine, pessimism reigns supreme. The enthusiastic reports of increased longevity are dampened by the concept that this increased number of years has been purchased

only by the treatment and prevention of contagious and infectious diseases and in the improvement of the mortality rates of infants. It is pointed out that actually there has been little or no increase in life expectancy of the man who is fifty, fifty-five or seventy years of age. There are just more living to that age to start with who are fugitives from the infectious diseases and accidents. This is all well and true but the spirit in which this is pointed out gives impression to the reader and listener that the outlook is incapable of change.

Even though the previous concepts are incapable of proof at the present time, the idea that the degenerative effects and diseases of man are the result of stress and strain and not the result of monotonous hammering of life's chronometer points directly to the fact that something very definitely can be done to improve even the life expectancy and life worth of those who are now in advanced years. Most any student of preventive medicine and physiology will agree that, could we apply systematically all the knowledge which lies within our hands today to the total population of the United States, we could increase the life expectancy by ten years within one generation. One needs only to point: 1) to the improvement in physical well-being which could be accomplished by weight reduction programs in 28 per cent of the American people; 2) to education and mental hygiene programs which should produce more happiness and less frustration for more individuals; 3) to increased use of physical education in order to preserve the physical body of the individual and prevent the disabling diseases such as fibrositis, osteoarthritis and bursitis; 4) to the encouragement of mental acuity and habits of study so that individuals living into the advanced years do not suffer from the competition of the young so far as intellectual abilities and capacity are concerned: 5) to rehabilitation in the aged individual which pays just as big dividends as rehabilitation in the younger and 6) to the nurturing of motives to make the above possible.

Thus, this consideration of gerontology brings into focus the new profile of medicine as it exists today in this country, the emphasis on the chronic disease. Few there are who realize it yet, but the impact of gerontology upon medical education, health, welfare, hospitalization and rehabilitation will sweep across the American scene with the force of Hurricane "Connie" or "Diana." Thus we have before us great vistas of one challenge right after another which keep those with imagination busy plotting the course of the generations to come.

Back to fundamental concepts again we are ready to define aging from a medical standpoint as that effect of time on protoplasm which prepares the individual cell in a proper environment for the next cell division. This is unproven and may or may not be true but will not change our fundamental concept.

All the present so-called stigmata of senescence and senility are the result of the impact of environment on the individual and can be altered by training and preparation, education and motivation.

Gerontology is still the study of old age and aging. It may or may not include the material of the preceding statement. There is no reason why this material should not be included under the term so long as the distinctions pointed out continue to be maintained in the minds of all concerned.

Geriatrics still remains that division of medicine which deals with old age and its diseases. It is naturally understood that the diseases of the aged may include many formerly included in a good pediatric text. Also like the pediatrician whose duty it is to keep the well child well, it is the duty of the geriatrician to keep the oldsters well.

How is medicine going to meet this challenge? Let us examine the records.

First, we must realize that to encourage enjoyment of one's stresses and promote better life adjustment is a multidisciplined job. The homemaker and the business man, the neighbor and

the relative, the beautician and the barber, the banker and the sociologist, the nutritionist and the physiologist, the psychologist and the physical education major, the entertainer and the pastor all have a stake in this problem and should be educated and encouraged by the physician to participate in finding a solution. Too often in the past the stimulation to act and take part is initiated by one of the disciplines other than medicine. The physician is really a "Johnny come lately" in the picture. *It is difficult, indeed, among the profession to find individuals with the broad classic background necessary to understand people, enough patience to make the effort, and a love of humanity deep enough to make the work enjoyable.* Times without number one hears of medical men refusing to answer house calls because "They are taking care of such old people," or, if the call is taken, it is with the attitude "Well, what do you want, a new machine made from all those old parts"?

It is easy to treat the appendicitis case as a rule, no matter how difficult the personality adjustment may be. The surgeon knows that by the end of the week usually the hospital bed and the appointment book will be filled by someone else. But the oldster with the chronic disease comes back again and again. It requires patience, knowledge and sense of humor that were never put there by a medical school, but only by hard everyday experience. More often than not the physician finds himself the driver of an old jalopy that contains not only the patient but most of the relatives. *Medicine from the standpoint of pills and potions takes a back seat to education and advice to the patient and to the community.*

Since the problem belongs to all, it is necessary for the physician to appreciate from whence his help may come and perhaps direct the contributions of the other disciplines so that a unified purpose may be accomplished.

At this point it is necessary to emphasize that many of the so-called infirmities of age stem directly from the lack of condition. Great numbers of individuals after leaving high school or college settle down to a routine of breadwinning which uses only a small portion of their muscular or physical equipment. Under these circumstances it is very easy to understand why the physical horizons become cramped, why the hand shakes, and why the gait becomes uncertain and tottery. This being true, it behooves the young to continue some type of physical development and exercise throughout life instead of neglecting these important duties after leaving school.

Forgetfulness and mental retardation result largely from the lack of attention and failure to concentrate and a loss of motivation. This can largely be prevented if we will all continue to encourage some habits of study learned in school. Some serious reading and thinking should be a part of each one's daily life. The muscles are strengthened and the wits are sharpened only by the proper exercise and development.

Mead has reported that the Balinese, who believe in re-incarnation, retain the ability to learn new and complicated tasks which are supposed to help in their new re-incarnation. It is reasonable to assume that the older person may often have better judgment and a deeper understanding than the young person.

Busse and his co-workers recorded the cortical activities of persons over sixty by means of electroencephalogram. The results were interpreted as evidence of more flexibility and more ability to learn new patterns than were expected. Although the findings were not conclusive, the obvious depreciation of learning and memory function were undoubtedly affected by the intensity of attention, the level of interest and the acuity of perception.

In closing a paper of this type, no conclusion can be drawn. The purpose of "Education For Gerontology" may have been served in a small way if

1) the simple fundamental concept of aging which has been offered will stimulate further work in this direction;

2) the present stigmata of senescence and senility be re-classified as being caused by environmental stress rather than just the passage of time;
3) medical research, assured of the possibility of success by the above, will carry out extensive investigation in the realm of psychosomatic medicine, psychology, sociology and social science so as to provide better adjustment to environment;
4) the aging population could be given hope and motive for carrying on, for now the wrinkled skin and the grayed hair represent the service ribbons of a conflict participated in and can be worn majestically;
5) all realize that this is or will be each and everyone's problem and all the disciplines should work together as a unit;
6) the doctors realize that with the changing silhouette of medicine more of their patients will present a geriatric picture and it will be necessary for them to meet this challenge;
7) the youthful be taught that they probably will live longer. In order to do it, and do it well, they must look to the preservation of physical and mental capacities and develop them toward making a satisfactory adjustment to environment.

It is difficult to picture the wonderful world of the future. A century from now, when every home has its space ship, and flying belts are as common as bathing suits in our own day; when a weekend on the moon or a picnic supper on Mars offers a pleasant way to spend a few holiday hours or days; when the economic problems that now plague all nations shall have paved the way for a balanced secure prosperity for all classes and all peoples; when a new art and a new literature shall reflect a better world filled with healthier, happier, better people; when all the wonders that today seem part of a glorious future have become commonplaces of day-by-day living, who is to say that any of these miracles will supersede in greatness the miracle that now lies almost within our reach—the miracle of rescuing and revivifying our Lost Generation of the aged? Surely the gift to our elder citizens of richer more abundant living during the lengthened last quarter of their lives is one of the pillars on which that great new world of the future will rest! Surely a re-created generation of elders will have a telling part to play in bringing the brave new world into reality!

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BOARD OF MEDICAL EXAMINERS

Revocation of License*

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Section 144 of the Medical Practice Act deals with the very important matter of revocation of license. This article will be devoted to a discussion of the causes for which a physician's license may be revoked; the procedure which the Board follows in such action; possible further legal actions following revocation; and the procedure by which a new license may be obtained after revocation.

The Board of Medical Examiners of Maryland, under the provisions of Section 144, may "revoke any license which has been issued, and may cause the name of any physician so licensed to be removed from the register of the licentiates" . . . Action to revoke a license may be taken for any of the following causes: "the use of fraud or deception in obtaining the license. . . , habitual drunkenness, insanity. . . , addiction to narcotics, criminal abortion, conviction of crime involving moral turpitude or unprofessional or dishonorable conduct. . ."

Let us now consider individually the causes for revocation given in the preceding paragraph. "The use of fraud or deception in obtaining the license" is a self-explanatory term. It includes cheating on examinations and presenting false or fraudulent credentials in an attempt to obtain a license. Habitual drunkenness is included as a protection for the public against the physician with a severe alcohol problem who might attempt to practice while drinking heavily. It also protects the physician from possible suit and almost certain loss of prestige.

Insanity (as defined in the Annotated Code of Maryland—Article 59) has been added in the 1957 Act as a cause for revocation. It was the considered opinion of all those concerned in the writing of the Act that both the public and the physician involved should be thus protected from the irresponsible acts of a mentally ill person. Addiction to narcotics was also added in the 1957 Act as a cause for revocation. This exigency is fully covered under the Maryland State Uniform Narcotic Act of 1937. However, for the sake of completeness, it was thought best to add this cause for revocation to Section 144. Incidentally, drug addiction is the only cause under our law for which a license can be suspended. The license may be restored when the addicted physician furnishes the Board satisfactory proof that he is cured.

Criminal abortion is an obvious cause for revocation and one closely related to the practice of medicine. It is, alas, one of the most frequent causes of revocation. Understandably a license revoked for abortion is seldom restored.

"Conviction of crime involving moral turpitude" is the cause for revocation which brings out more debate and argument than any of the others. These discussions reveal a wide variation in the interpretation of the meaning of "moral turpitude" by different individuals. Certainly the members of the legal profession are not in close agreement among themselves concerning the meaning of the term, nor is the medical profession. Little wonder, therefore, that varying decisions are reached by the Board when moral turpitude is the principal issue at stake. Cases involving unprofessional or dishonorable conduct are usually referred to the Board by the Professional Conduct Committee of the Medical and Chirurgical Faculty. These cases like those involving moral turpitude must be considered carefully on an individual basis.

The Secretary of the Board of Medical Examiners is responsible for calling to the attention of the Board any offense on the part of a licentiate

* This is the third of four articles.

which may furnish grounds for revocation procedings. The case is then carefully discussed, advice of the Attorney General is frequently sought, and (when criminal activity is involved) court dockets are obtained. If the Board feels that the seriousness of the case warrants further action—"the person against whom complaint is made shall be furnished with a copy of the complaint and charges made against him, and shall be given an opportunity for a hearing before the Board, . . ." It should be noted that this action is not taken by the Board on anything other than written, well documented evidence. The complaint sets a definite date for a hearing at which time the accused person may offer testimony and be represented by legal counsel. A court stenographer takes the testimony and a full hearing of the matter is conducted before the entire Board. The hearing is conducted by the president of the Board with a member of the Attorney General's staff as legal advisor. After the hearing is completed the Board discusses the case and then takes action. If the Board decides that the charges have not been proved the case is dismissed; if five or more members of the Board vote for revocation the license of the accused physician is revoked. The action of the Board in revoking a license is reduced to writing "and a copy thereof shall be delivered or mailed to the person against whom complaint is made. . ." This is done by registered letter.

The physician whose license has been revoked has sixty days after receiving the order of revocation in which he may appeal the action of the Board. Under the present Medical Practice Act "both the party and the Board shall have a further right of appeal. . ." The first appeal is to the Circuit Court and the second appeal to the Court of Appeals of Maryland. In either court the action of the Board may be confirmed or reversed. If no appeal is taken, or if the action of the Board is affirmed after appeal, the license stands revoked and the physician's name is removed from the register of licentiates.

The physician whose license is thus revoked may apply to the Board at any time for a new license. Within two years after revocation the Board may "by a vote of five members, issue without examination a new license . . ." If more than two years have elapsed following the revocation, the physician, if permitted by the Board to do so, would be required to take the examination as in the case of any new candidate.

Finally, it should be understood that the Board of Medical Examiners of Maryland cooperates with the Boards of other States and the District of Columbia in cases involving revocation. For example, if a physician is licensed in both New York and Maryland and is convicted of criminal abortion in New York, the New York Board will revoke his New York license. The New York Board will notify other State Boards of their action through the Federation of State Boards and the Maryland Board will then revoke the physician's Maryland license. Thus a physician can not move his practice to another state after his license is revoked in the State in which he is practicing. The same considerations apply to a physician who has his license revoked in Maryland and is also licensed in another State.

1215 Cathedral St.
Baltimore 1, Maryland

HEART ASSOCIATION OF MARYLAND

Booklets Published for Patients on Sodium-Restricted Diets

SIDNEY SCHERLIS, M.D.*

Three new booklets prepared especially for adult heart patients placed on sodium-restricted diets, have been published by The American Heart Association.

These pamphlets are available to physicians at 15¢ each (the cost of printing). However, a free sample may be obtained by writing:

The Heart Association of Maryland
1140 Mondawmin Concourse
Baltimore 15, Maryland

The booklets were prepared under the direction of a committee representing four agencies in addition to the American Heart Association. They are the U. S. Public Health Service, the American Dietetic Association, the Council on Foods and Nutrition of the American Medical Association, and the Nutrition Foundation.

Each brochure is designed to help patients follow the physician's prescription for a different degree of sodium restriction: Strict—500 mg.; Moderate—1000 mg.; and Mild. In each booklet there is a choice, to be indicated by the physician, of three different calorie levels—1200 calories, 1800 calories and unrestricted. Food lists enable the patient to vary his meals as he becomes familiar with his basic diet plan. Weight watching, meal planning and problems of the family cook are discussed and practical suggestions on eating out and on shopping for food are given.

* Chairman, Public Education Committee.

REFRESHER COURSES

For Practitioners, Pediatricians and Clinical Pathologists

The Children's Hospital of Philadelphia and The Graduate and Undergraduate Schools of Medicine, University of Pennsylvania announce the following series of refresher courses:

Pediatric Advances—May 26th through 30th
Practical Pediatric Hematology—June 2nd, 3rd and 4th
Hemolytic Disease of the Newborn—June 5th and 6th

The courses will be given in the Hospital's auditorium, from 9:00 a. m. to 5:00 p. m. For additional information contact—

Dr. Irving J. Wolman,
Children's Hospital of Philadelphia,
1740 Bainbridge Street,
Philadelphia 46, Pennsylvania

Report

COMMITTEE FOR THE STUDY OF PELVIC CANCER*

BEVERLEY C. COMPTON, M.D., *Secretary*

The Committee for the Study of Pelvic Cancer meets monthly for the discussion of selected cases. All physicians are invited to attend these meetings.

Abstracts of Case Discussions

Case 1

A 58-year-old white patient—married—gravida 4004. The patient stated that in 1938 she had excessive bleeding which she was told was due to "tumors." She had a D. & C. and biopsy of the cervix in March of 1938. The hospital record gives the pathological diagnosis at this time as "Squamous cell carcinoma of the cervix, highly anaplastic, grade III, associated with acute inflammation." Four weeks later she was readmitted to the hospital for radium application. She did not have deep x-ray therapy. The patient says she had no further bleeding. In February of 1956, she had surgery for repair of a cystocele and rectocele. In June 1957, there was a sudden onset of fairly profuse vaginal bleeding and abdominal pain. She consulted her physician, who had her admitted to the hospital. Examination under anaesthesia revealed a large pelvic mass. Dilatation and curettage with a biopsy was performed. The pathological diagnosis was, "Carcinoma, anaplastic; atrophic endometrium, carcinoma, anaplastic, metastatic." The patient was transferred to another hospital for treatment.

Final Diagnosis: Squamous cell carcinoma, probably arising in the endocervix.

* Under the auspices of the Medical and Chirurgical Faculty and the Maryland Division of the American Cancer Society.

Chairman: Do we have any further information on this case?

Committee Member: I am wondering about this final diagnosis of squamous cell carcinoma. From the record here the June biopsy showed anaplastic carcinoma and I assume the origin was not definitely established. The patient was first treated here with Heyman's capsules so this must have been thought to be a carcinoma of the endometrium.

House Officer: Yes. At the time of the first radium, I curetted the endocervix and the report came back squamous cell carcinoma. We had considerable discussion as to how to classify this but decided not to classify it as either fundus or cervix, but probably of endocervical origin with extension to the fundus and cervix.

Committee Member: The lesion was primarily endometrial?

House Officer: Yes.

Committee Member: The crux is whether this is an adenocarcinoma, and therefore a second carcinoma, or squamous cell.

House Officer: It is very anaplastic, but looks more like a squamous cell.

Committee Member: Was there an obvious lesion on the cervix?

House Officer: No. And the pelvic mass which was palpated turned out to be fibroids.

Chairman: Just incidentally I would like to ask how you feel about fibroids as a contraindication to radiation treatment in stage I carcinoma of the cervix? This is sometimes used as a reason for surgery in stage I.

Committee Member: In our series we have used radium routinely and the results have been

good. I don't believe the presence of even a large fibroid makes any difference.

Committee Member: I agree. I think in most cases the treatment can be carried out just as well regardless of the fibroids.

Chairman: That is certainly my feeling and I think the presence of fibroids is used as an excuse only by those eager to use surgery anyway.

This case we are discussing raises the question of the advisability of doing surgery for repair of a cystocele after a patient has been treated with radiation for a cervical carcinoma. Many of you have heard Dr. Novak tell of a famous case of his. He had treated a patient with radiation for a carcinoma of the cervix and she had apparently been cured. After eleven years he was finally persuaded to operate on her to repair a large cystocele. Within six months she was dead of carcinoma. I have a patient who was treated twenty years ago for a carcinoma of the cervix and has remained asymptomatic. She has a very large cystocele and she would like very much to have this repaired, but I won't consider doing it.

House Officer: Was the surgeon who operated on this patient in 1956, aware that she had been treated for a carcinoma of the cervix in 1938?

Chairman: The abstract of the record we have from this hospital does not include the patient's history as given on that admission. From what we have, there is no indication that the previous diagnosis was known. The patient herself says that she was treated for "tumors"—probably considered fibroids.

House Officer: Wouldn't you do a D. & C. before doing a vaginal repair?

Chairman: I always do.

House Officer: I certainly have been taught and intend to practice that any patient taken to surgery should have a pre-op Papanicolaou smear and cervical biopsy. Should a surgeon ever proceed without information as to what was done at previous surgery? Am I wrong in assuming that you should get information from other hospitals?

Committee Member: I think you are entirely right. I think it is a serious breech of responsibility not to get this information.

House Officer: Do I understand you to say that you feel you are never justified in doing a vaginal repair on any patient who has been treated with radiation for a carcinoma of the cervix?

Chairman: Well, "never" is a very extensive word. How do some of the rest of you feel?

Committee Member: I have done a couple.

Committee Member: I have done it but I don't like it. The question rather resolves itself into how symptomatic is the cystocele.

Committee Member: Yes, the patients I am thinking of had rather severe stress incontinence, with a urethrocele. I did a Kelly plication.

Chairman: A urethrocele is somewhat different. In a cystocele the incision is within a few centimeters of the old carcinoma site. In a Kelly plication you are three inches away.

Committee Member: In the case we are discussing the carcinoma was not at the operative site. This lesion was primarily endometrial.

Chairman: Yes, this is a very interesting case and further information as to the surgery and the pathology would be a help. I am sorry that the hospital resident who expected to be here today could not come.

Committee Member: I recall a patient of mine who had surgery for a carcinoma of the vulva. She developed a large cysto-rectocele and I did a repair. She had no trouble.

Chairman: I have done a repair on a patient who had had a vulvectomy for leukoplakia. I think you could repair a cystocele after a vulvectomy for carcinoma, but a rectocele is a question. I would hate to make an incision in the muco-cutaneous border.

Visiting Surgeon: Is the reason you would stay away, because the disease is quiescent and if disturbed would become active?

Chairman: Exactly—you may release trapped cells. I believe that in a high percentage of patients who stay well, it is that way. I think if

you could have real autopsies on patients with a history of treated carcinoma, who die from other causes, you would find cancer cells.

House Officer: How long do you think the fibrous tissue holds malignant cells?

Chairman: That is a question.

House Officer: Twenty-five years?

Chairman: Could be, but this is one of the things we don't know. It can be for a long time. I think it is one of the reasons for using x-ray post-operatively in carcinoma of the ovary. I recall a case of many years ago. She was not my patient originally, but had had surgery for a carcinoma of the ovary. She did not have x-ray. A year or so following surgery she had a recurrence—the pelvis was filled with a mass—and the family was told that nothing further could be done. As will happen, they shopped around for other advice and came to me. I agreed that there was a tremendous mass and the case seemed hopeless but asked one of the x-ray men to see her. He agreed that it was probably hopeless but decided to give her a course of x-ray. I did not see the patient again. Thirteen years later the radiologist called me and asked if I remembered the case. I said of course but I supposed the patient had died long since. He said indeed not, but she now had a urinary infection and he asked me to see her in regard to that. When I examined her she still had a board-like mass across the abdomen but had been asymptomatic.

Case 2

A 43-year-old colored patient—married—gravida 12. In early 1957 her periods became irregular as to interval with some increase in the amount of flow. The June menstrual period was very profuse and prolonged. She consulted a physician at this time. She was not examined because she was bleeding but was asked to return when the bleeding stopped. The patient says, "It did not stop for so long, I just never went back." In July and August, there was intermittent slight bleeding. She thought that these symptoms were due to the beginning menopause and did not consult a physician again until late September when she went to a second doctor. At this time she was having rather profuse bleeding. She was examined and referred to the hospital.

Diagnosis: Carcinoma of the cervix, international classification, stage II.

Treatment: Radium and deep x-ray therapy.

Chairman: Does anyone wish to comment on this case?

Committee Member: This patient eventually came to us. She is a rather recent case and has been treated with two applications of radium and a course of deep x-ray therapy. She has done fairly well as far as the local cervical lesion is concerned. I happened to see this patient in the clinic a few days ago and she has a node which is to be biopsied but I believe she has not yet been admitted for this.

Chairman: This is the old story of symptoms thought to be menopausal and delay in examination because of bleeding. There is no doubt that this patient had a chance to have the diagnosis made earlier. She consulted a physician but was not examined because she was bleeding. There seems to be a rather wide-spread misconception among patients and physicians that examination should not be made during bleeding. Of course examination should be made. Whether the bleeding is normal menstrual bleeding or otherwise makes no difference.

Committee Member: It is amazing how often we hear this story of delay in diagnosis because the physician defers examination or the patient defers examination because of bleeding.

House Officer: Do you think a patient would refuse an examination if she understood the importance of it?

Chairman: Certainly every effort should be made to see that a patient is examined if examination is indicated, and the importance of it made very clear to her.

Case 3

A 48-year-old colored patient—married—gravida 3. Periods said to be regular and normal. The patient stated that several years ago she had some spotting a few days before onset of menstrual flow. She consulted her physician in regard to this. A pelvic examination was made and she was told that there was a very small erosion on the cervix. This was treated and cleared up promptly. She had no further irregular bleeding until October 1957, two weeks following a regular period, when she noted very slight spotting. She immediately consulted her physician and a pelvic examination was made. An erosion was noted on the cervix and the patient referred to the hospital. Biopsy of the cervix was positive and the patient was referred to a second hospital for treatment.

Diagnosis: Carcinoma of the cervix, international classification, stage I, early.

The patient was treated with two applications of radium.

Chairman: This is the kind of case we like to hear about. The patient sought medical advice promptly at the first sign of irregular bleeding. A pelvic examination was made and she was immediately referred to the clinic for diagnosis and treatment. Was there any visible lesion on the cervix? I understand it was a very early lesion.

House Officer: No, clinically there was no lesion. It was considered invasive but very early. She is doing well. She has received two radium applications.

Committee Member: She is not to receive any cobalt?

House Officer: No, she is not to have external radiation.

Chairman: You are giving her two applications of radium and no other treatment? What is the reason for that?

House Officer: The radio-therapist felt that with this very early type of lesion, two radium applications would take care of it.

Committee Member: The fact that this patient weighed over 250 pounds had a good deal to do with this decision. Our usual procedure would have been to give further treatment.

Visiting Surgeon: Would you think that the pre-menstrual spotting noted by the patient several years ago, was indication for a smear or biopsy at that time? Could this have been related to the later diagnosis?

Chairman: We have a letter from this physician which I shall read:

"I saw this patient in 1948, complaining of spotting on two occasions one week before the onset of menses. On examination the cervix was clean. She was advised to return if there was a recurrence. On subsequent visits she was questioned and when last seen in November 1955, with a complaint of slight rectal bleeding due to external hemorrhoids—the cervix was clean. When next seen in October of 1957, the patient complained of slight spotting once or twice. On examination there was apparent a large friable erosion on the cervix. An immediate biopsy was advised."

This patient appears to have had good follow-up. She complained of some slight spotting in 1948 and the cervix is described as clean at this time. She had no further symptoms until 1957. Carcinoma-in-situ can lie dormant for a very long time but it hardly seems possible that anything could have been there almost ten years ago considering this was a very early lesion when diagnosed and there were no symptoms in the interim. Our standards have changed considerably over the past ten years. Probably today this patient would have had a Papanicolaou smear or biopsy if she presented herself with the symptoms she had in 1948.

I don't believe we can say this case shows anything but a prompt diagnosis.

Conclusion of Church Home and Hospital Issue*

HYPNOSIS, AN ADJUNCT TO ANESTHESIOLOGY

EDWARD I. LEDERMAN, M.D.,* CLESS Y. FORDYCE, M.D.,† THEODORE E. STACY, JR., M.D.‡

Shortly more than a hundred years ago, hypnosis was a well established method of producing analgesia and anesthesia for surgical procedures;§ and "etherization" was but a medical curiosity. Today, none question the use of ether as an anesthetic agent, but the mere mention of hypnosis causes many eyebrows to be raised. There are even those who will say that it is merely a fad and a method used by "charlatans" and "quacks." Unfortunately, it *is* used by "charlatans" and "quacks"; and even more unfortunately, it has received its greatest notoriety from the stage and television. Yet, despite all this unfavorable publicity, it can be a valuable adjunct in the practice of medicine, and most especially in anesthesia.

When one has been privileged, as were the authors, to witness a total thyroidectomy with only the *words* of the hypnotist‖ as pre-operative sedation, surgical anesthesia, and post-operative analgesia, one can only reiterate the words of the great surgeon, Dr. Warren, who on October 16, 1846 said of ether, "Gentlemen, *this* is no humbug." Hypnosis is *no* humbug, it is a real medical entity; and articles appearing each day in the journals point to its ever increasing use in surgery, even in such major procedures as pulmonary resection and total hysterectomy.[1, 2]

Hypnosis never can, nor never will replace chemo-anesthesia. This is true for many reasons:

1. The very young and the very old cannot be hypnotized.

2. Only 10 per cent of the intervening age groups are capable of attaining a depth of hypnosis necessary for surgery.

3. There will never be enough anesthesiologists adept enough, or willing enough, to devote the extra time necessary for producing hypnosis.

4. Those anesthesiologists trained in hypnosis and willing to spend the extra time in preparation of the patient are handicapped by the practise of admitting patients the day prior to surgery.

Despite these reasons, the authors feel that it can be of great value in the care of the majority of surgical patients. It is our earnest intent to explore its use to the maximum, for pre-operative sedation and post-operative analgesia, while relegating its use for surgical anesthesia to the occasional patient. The continued search for drugs, which will sedate the patient pre-operatively without depressing his vital functions, serves to point out the great need for a universal

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§ The first recorded major surgery under hypnosis was a mastectomy performed in 1829 by Jules Cloquet. John Elliotson, a noted English surgeon, established a reputation by performing painless surgery under hypnosis, as early as 1837. In 1842, a mid-thigh amputation was performed by Ward with the patient under hypnosis. During the years between 1844–1859, James Esdaile, working in India, performed several thousand operations under hypnosis. Several hundred of these were major procedures, including amputations, removal of massive scrotal tumors, and radical maxillo-facial procedures.

‖ Film prepared by Dr. W. S. Kroger, Associate Clinical Professor of Obstetrics and Gynecology, Chicago Medical School, and shown to Seminar on Hypnosis, September 8 and 9, 1957 at Church Home and Hospital.

* All "Scientific" articles were written by members of the Staff of Church Home and Hospital for its centennial issue of the Journal—February and April 1958.

technique of pre-operative preparation. Similarly, what drug or technique will alleviate pain without causing diminished cough reflex, reduced appetite and increased "gas pains"? To date, the only solution to these problems lies in hypnosis.

As heretofore stated, there are sufficient agents and techniques, though not always ideal, to guarantee safe and adequate surgical anesthesia. It is not with this phase of the problem that we are primarily interested, although in some cases, hypnosis would be the ideal technique.

Present day techniques for preparation of the surgical patient leave much to be desired. For the most part, an opiate or barbiturate is usually prescribed. It is hoped that this will quiet the patient and allay his apprehension prior to surgery. Beecher[3] believes that, even in minimal doses, these agents produce some degree of respiratory depression and lower the blood-oxygen content. He states, "Narcotics are not necessary for pre-anesthetic medication and their presence is actually harmful." Furthermore, these drugs are usually prescribed by members of the house staff in a purely routine manner, thus emaciated old ladies get the same dosage as robust young athletes, with obvious results. The emaciated old lady is so depressed that surgery is frequently postponed, while the young athlete has not been affected in the slightest. Bramwell[4] estimated that 78 to 97 per cent of all persons are affected to some extent by hypnosis. This is considerably higher than estimates of other workers who find that at least 60–70 per cent of all persons are capable of reaching some level of the trance state. Thus, it would be possible to benefit a majority of the patients scheduled for surgery.

It is even possible, with only one pre-operative visit to achieve a light trance state which would be sufficient to put the patient at ease and allay his apprehension. This would make it possible to reduce or eliminate entirely the preoperative opiate. If this were all that could be accomplished by hypnosis, it would be reward enough for the anesthesiologist for his extra efforts; however, it is only a small part of what really can be done.

Post-operatively, suggestion can be of inestimable value. Patients demand care and treatment that will give them the greatest relief from pain and discomfort following surgery. The surgeon, in his endeavor to achieve this end, ladens the patient with pain relieving opiates. The pain is relieved, but the patient is insensible. His cough reflex and respirations are so depressed that atelectasis and pneumonia frequently complicate the recuperative period. Not only does the opiate lessen the pain, but it lessens the appetite as well, with the result that parenteral feeding must be substituted. Crasilneck[5] states that wound healing is promoted when patients can be fed normally. According to Goodman and Gilman, opiates produce contraction of the circular muscles of the intestine without promoting peristaltic waves. This produces a constipating effect, so that whatever gas is formed in the intestine is not moved by peristalsis to be expelled as flatus, with the resultant "gas pains." Although the incidence of drug addiction, following its use post-operatively for pain, is small, one must not overlook the possibility that it may occur.

With hypnosis, these undesirable effects of the opiates could be eliminated. The patient, who responds pre-operatively, could be trained to re-enter the trance state post-operatively, and through post-hypnotic suggestion pain and discomfort would be eliminated. Through this rather simple expedient, the anesthesiologist could lighten the surgeon's burden, and reduce the so-called "normal" morbidity.

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TENSION HEADACHE

ZACH. R. MORGAN, M.D.*

Tension headache has been described as a continuous ache, usually bilateral, occurring with stress and emotional states. The condition is very common, though no actual statistics are available as to its frequency. In 96 of 100 cases, Shapiro[6] found these fitted into the category of psychogenic tension headache.

Friedman[3] et al., Freed[2] and others have pointed out that emotional states may induce headache by producing changes in the caliber of the cranial vessels and spasm of the skeletal muscles of the head and neck. Judovich[4] has likewise noted that tension headache is a stress reaction of the branchial-derived nerves and the structures which they supply. The muscles respond to stress and emotional states via the autonomic fiber pathways, which offer an explanation for tension headache and its accompanying visceral and somatic symptoms. Although the actual factors which trigger the pain mechanism is unknown, Judovich[4] suggests that the release of stress substances is supposedly controlled by the hypothalamus. According to Friedman[3] et al., there are three components of tension headache, namely; 1. vasodilatation of the cranial vessels, 2. sustained contraction of muscles of the head and neck, and 3. psychogenic factors.

There are many exciting causes that are known to produce tension headaches. The causative factors are as follows: diet, excitement, overwork, premenstrual, occupational, worry, dislike of employer, mother-in-law, anxiety, hysteria, compulsive neurosis, fatigue, stress, weather, and many other factors which contribute to the development of these headaches. In 89 of 96 patients with psychogenic tension headache, Shapiro[6] observed that problems of anger and aggression precipitated the headache. Friedman[3] et al., found that 72 per cent of cases of tension headache present emotional factors which contribute to the development of the headache.

It must be pointed out that every patient has some degree of emotional tension associated with headache. The amount of tension capable of triggering the mechanism of the headache varies in different individuals.

Tension headache may occur at any age of adult life. It more frequently occurs between the third and fourth decades. About 70 per cent of cases occur in females. There is a family history of headache in a large percentage of cases.

The pain in tension headache is described as dull, throbbing, pressing. The onset is usually gradual. Freed[2] pointed out that the patient may be awakened with an intense headache. The frequency of the headache depends upon the intensity or chronicity of the emotional stimulus. Friedman[3] et al., noted that 32 per cent had daily headaches, 23 per cent claimed that their headaches were constant with exacerbations or severe pain. They also noted that the

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headaches were of long duration; 41 per cent had had headaches for 10 years or longer.

The pain occurs chiefly at three sites; namely, frontal, temporal and occipitocervical. Often the patient is unable to localize the pain. The intensity of the headache varies from a feeling of pressure or tightness to severe pain and tenderness over the scalp. There is often some rigidity of the neck, and tenseness of the occipital muscles.

The diagnosis of tension headache is made clinically by a process of elimination. Migraine is the most important condition to be differentiated. In tension headache, the pain is more often bilateral, prodromata rarely occurs. It often begins in the occipital region. It is intermittent, often lasting several weeks, with periods free of discomfort and with exacerbations. A characteristic of tension headache is that it is often associated with a sense of depression. Another characteristic is that Ergotamine gives no relief, and the headache is often worsened following its administration. In tension headache cases, the patient is not very ill, and is able to work most of the time.

A classical case is presented below, which typifies an example of cases falling into the category of tension headache.

Case Report

Mrs. F. I. B. Age: 32 years. Date of Examination: 11-30-50 (Dr. Zach. R. Morgan). Occupation: Hostess (Restaurant). Height: 62¼ inches. Weight: 147½ pounds.

PRESENT ILLNESS. A few months after the patient's marriage in 1938, she began having frontal headaches which radiated into the occipital region. These headaches occurred about one week before her menstrual period, gradually became worse until the flow was well established, and then subsided. About two to three years later (1940), the headaches became less severe. The patient was fairly comfortable until a few months ago (1950), at which time the headaches became very much worse. The headaches are still recurring seven days premenstrually, but during the last two days before the period begins, the pain becomes almost unbearable.

FAMILY HISTORY. Father died of carcinoma of the lung. Mother, four brothers, and two sisters living and well. No history of migraine in the family.

PAST HISTORY. Has had tonsillitis. Has pains in fingers and knees occasionally. Has one stiff joint on right hand, since kidney condition at age 15. Is allergic to spinach. No neuritis, scarlatina, pneumonia, typhoid, grippe, tuberculosis, lues, rheumatic fever, chorea, malaria, gonorrhea, nervous breakdown, or diabetes mellitus.

OPERATIONS. T & A in 1948, by Dr. F. Hamlin in Roanoke, Virginia. Appendectomy (clean) in 1943, by Dr. P. Davis in Roanoke, Virginia.

HEAD. Heachache—See Present Illness. No other head pain.

OCULIST. Dr. Charles Young, Roanoke, Virginia. Last eye examination—one year ago. Wears glasses for close work only.

CARDIO-RESP. Is subject to colds, has dyspnea on exertion, has cough with colds, and has edema of feet and ankles in hot weather. No expectoration, hemoptysis, night sweats, pleural pain, palpitation or cardiac pain.

GASTRO-INT. Appetite and deglutition—good. Is constipated and has passed bright red blood in stools, occasionally. Patient says she has hemorrhoids. No nausea, vomiting, hematemesis, waterbrash, eructation, diarrhea, jaundice or pain.

DENTIST. Last dental examination—1944. Has never had teeth x-rayed and has no replacements. One wisdom tooth removed in 1942, and two removed in 1946, by Dr. Repass, Roanoke, Virginia. Other never erupted and was never x-rayed.

GENITO-URINARY. Very seldom has nocturia. No polyuria, hematuria or infections.

MENSTRUAL. Menses began at age 13. Periods are regular; amount is normal. Last about two days. No pain. Headache about one week before period.

NEUROLOGICAL. Vertigo—one week before menstrual period. No tremor.

HABITS. No coffee, tea, alcohol or tobacco.

Physical Examination

GENERAL. Well developed and much overweight.

HAIR. Fine in texture.

SCALP. Normal. No dandruff.

SKIN. Normal.

EYES. Pupils—equal, react to light and accommodation. Extra ocular movements—normal. Fundi—normal. Marked photophobia. No nystagmus. Slightly positive Von Graefe's Sign, Stellwag's Sign, and exophthalmus. Convergence—poor.

NOSE. Mucous membrane—normal. Septum deviated to left. Breathing space—slightly restricted on the left.

EARS. Drum membranes—normal.

TONSILS. Removed. Fossae clean.

TEETH. Well spaced and in excellent condition.

NASO-PHARYNX. Mild post nasal drip.

TONGUE. Protrudes in midline with tremor. Papillae prominent.

SINUSES. Transilluminate normally.

THYROID. Large, smooth and firm.

GLANDS. Anterior cervicals and posterior cervicals—palpable. Epitrochleas, inguinals and axillaries—not palpable.

BREASTS. Pendulous, Nipples normal. No masses felt.

CHEST. Respiratory movements—free and equal on the two sides. Tactile fremitus and vocal fremitus—slightly increased at right base. Percussion note—slightly increased at right base. Breath sounds—vesicular, somewhat increased at right base.

HEART. Pulse rate—80. Blood pressure—104/70/68. Three minutes after exercise, blood pressure—128/80/78. Point of maximal impulse is in the fifth interspace and is 9½ cm. from the midsternal line. Relative cardiac dullness—normal. Sounds are clear, well sustained. No murmurs. After exercise, sounds are clear. Some evidence of dyspnea. Sounds are clear, but distant, when in recumbent position.

ABDOMEN. Contour—normal. Greater curvature—above umbilicus. Costal arch—wide. No diastasis. Hepatic dullness—normal. Tenderness on deep pressure over McBurney's point. Appendix scar in good condition; is tender on pressure when patient coughs.

REFLEXES. Babinski and Oppenheim—negative. Romberg—negative.

SENSATION. Normal reaction to pain and temperature.

PSYCHE. Orientation and concentration—normal.

EXTREMITIES. No tremor of the extended hands. Nails—well formed, do not break easily. Fingers—short and stubby. Slight hypertrophic arthritis of the fingers. Legs—thyro-adrenal in type. Slight hypertrophic arthritis of the knees. Arches—third degree bilateral pes planus. Veins—slightly dilated.

PELVIC. Uterus—freely movable and in mild retroposition.

PROCTOSCOPIC AND RECTAL. Sphincter—normal. Rectal mucous membrane—normal in color. Occasional small internal hemorrhoid.

Laboratory Findings

BLOOD. Hemoglobin—72 per cent. Red blood count—4,450,000. Leukocytes—7,000. Blood sugar—95 mgm. per 100 cc. blood. S.T.S.—negative.

URINE. Reaction—pH—4.8. Specific Gravity—1.026. Albumin—negative. Sugar—negative. Microscopic—occasional epithelial cell.

STOOL. Negative for parasites and ovae.

BASAL METABOLISM. Minus 4.

GASTRIC ANALYSIS. Free hydrochloric acid present.

ELECTROCARDIOGRAM. Findings concomitant with (mild) myocardial degeneration.

FOLLOW-UP. Patient was given the usual Nicotinic Acid treatment for eight months. Since that time, she has been entirely asymptomatic.

The approach to the treatment of tension headache should be twofold, first to eliminate the cause of stress and tensions and second by drug therapy. This treatment requires psychotherapy, change of occupation and environment if necessary, etc., and other modalities, as well as the use of various analgesic sedatives to give relief.

Nicotinic Acid treatment has not been stressed as much as it should. Many authorities are of the opinion that Nicotinic Acid is indicated in various depressed states. According to Aring[1] et al., Nicotinic Acid produces an increase in the cerebral blood flow. Since the pain in tension headache is caused by vasoconstriction of the cerebral arteries, it would seem that the vasodilating effect of Nicotinic Acid should prove beneficial in these cases.

For the treatment of tension headache associated with vasoconstriction, we have advocated the use of Nicotinic Acid. It must be emphasized that the use of this drug must be carried out by a procedure which we have previously recommended, otherwise one may fail to secure the desired therapeutic results. Nicotinic Acid therapy is recommended in all cases of long standing constant headache associated with depression.

The treatment is first begun by giving the Nicotinic Acid intravenously and then later by the oral administration of Nicotinic Acid tablets. The oral treatment is continued for six months or longer. The dual method of therapy which we have advocated in the administration of Nicotinic Acid is of considerable importance

and is commensurate with the good results obtained.

The beneficial results obtained following the Nicotinic Acid therapy is evidenced by the intensity of the vasomotor reaction, which is usually evanescent. The side reactions are remarkably few. There are practically no contraindications to the use of this drug. Not infrequently the relief obtained following the use of Nicotinic Acid is rapid and most effectual.

SUMMARY

Tension headache is described and a form of treatment is advocated for its relief. Nicotinic Acid therapy is recommended. This drug should be administered according to the routine which we have developed, otherwise it may not be effectual. Our experience has shown that whenever Nicotinic Acid therapy had been used in the classical case, prompt improvement and complete relief is obtained in the majority of tension headaches.

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ACUTE ARSENIC SKIN MANIFESTATIONS

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Two patients with acute skin irritations, after short exposure to arsenic, stimulated us to this investigation. The object is to explain why such sudden skin changes, not previously observed, should appear. Although only two cases are included in this communication, there was every indication that a whole series were in the offing. Consequently, the urgency for an explanation of the mechanism of these acute skin lesions is obvious. According to most authorities, it is uncommon to observe arsenic eruptions such as are described in these two cases. Although there are many other manifestations of acute and chronic arsenic poisoning, this report deals principally with the acute skin changes. However, a review of certain aspects of arsenic skin irritation is included.

In chronic arsenicism, the changes in the skin are so typical that they are easily recognizable. As described by Collier, there is usually an acneiform eruption which appears particularly in the skin folds, or where the skin is moist, such as around the nose, the mouth, in the armpits and in the scrotal region. The eruption develops into an eczema which ultimately advances to skin ulceration. During this entire process, the itching is intense. Attention must be called to the severe conjunctivitis with edema of the eyelids, the nasal irritation sometimes with

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perforation, the sore throat, the laryngeal hoarseness and the bronchial catarrh which also often appear. Among the majority, however, the effect of arsenic is chiefly upon the skin.

In the cases now being reported, the skin lesions are characterized by a sunburn type of redness followed by pustule formation which on hairy parts and especially on the face, lead to additional distress because of the difficulty in shaving or cleansing. Usually, the back of the neck is involved as is the skin around the eyes. Although the patient invariably complains of his eyes, there is no doubt that the redness and edema are around the eyes rather than in them and that whatever associated conjunctivitis is present, is brought on secondarily by rubbing. As with most conditions which itch, there is impatience with therapeutic measures and an inability to control the tendency toward scratching. As a consequence, secondary contamination may often occur.

In one of our patients, H. M., age 40, exposure to arsenic extended only over a period of two hours. He was working on top of a train car, containing arsenic trioxide. During the operation of unloading the arsenic, he was in the open air. Notwithstanding this moderate exposure, he reported a facial and neck rash as well as irritation of both eyes the next day. Though the external evidences of skin and eye irritations were not unusually striking, the patient's description of his swollen eyes, his intense itching and burning skin were very real. The development of an erythema of the face and neck with some pustule formation over the bearded parts of the face followed and the subjective complaints mounted. The treatment employed gave only slight comfort even though exposure to further irritation had ceased, a state of affairs which makes these cases so extraordinary.

There seemed no doubt that the patient was highly emotional and hypersensitive to any discomfort and this may have accounted for a part of the apparent irreconcilable complaints. From previous contact with this patient, I knew him to be quite unstable emotionally. For example, he had complained of weakness, nervousness, "pins and needles" sensations in the feet, burning on urination, pain in the epigastrium and irregular sleep. Yet, on physical examination, no unusual organic abnormalities were found. It seems appropriate, therefore, to determine whether this was an individual supersensitivity or whether the general problem of hypersensitivity presented itself.

The other patient, J. R. P., age 37, developed the usual early scrotal dermatitis which, ordinarily, responds readily to simple therapeutic measures providing the individual is removed from exposure. On the second day, swelling of the eyes appeared. (He had worked only a part of one day.) Ten days later, this patient was still complaining of his eyes and skin although the external evidence of irritation was not very marked. This employee was granted disability despite the lack of external evidence of severe skin irritation, primarily, on the basis of his complaint of intense itching. However, there existed in this patient's mind the fear of poisoning which, I am sure, accounted for a part of his disability.

The decisions in favor of compensation in these cases were made for the employee because exposure to chemical irritation incited the skin lesions. However, the duration of disability depended entirely upon arbitrary factors such as subjective relief of all skin itching or the securing of a job. (Very few return to the same occupation.) In other words, the problem presented here is twofold. First, the appearance of a sudden symptomatically severe arsenic dermatitis and secondly, the loss of time which seems disproportionate to the illness involved.

Now, we know that a sensation of burning in the skin occurs with exposure to arsenic powder. However, the sensation is not persistent nor is it accompanied by skin eruptions except occasionally after several days exposure. There is no question that some people are particularly sensitive and that some skins are affected after one, two or three working days but with rare exceptions, there is no disability. Most of the

employees withstand skin eruptions for a long time except for very moderate, asymptomatic irritations.

Moreover, we recognize the basic problem of individual susceptibility but the two cases briefly reported here are the first in a series which differ from those of previous years. A survey of the latter makes it perfectly clear that neither the exact type of complaint nor the loss of time were problems. Hence, the need for this report.

In view of the world situation, it was learned that the type of arsenic used in the process at which these men were employed had to be changed. Whereas, formerly white arsenic was used and is 95–100 per cent pure, the present supply known as Beattie arsenic (As_2O_3), a by-product of certain gold extractions, was only 65–75 per cent pure. Upon investigation, it was generally concluded that the impurities were responsible for the burning properties and there was no question that Beattie arsenic was more corrosive to the skin. Moreover, it was believed that the presence of sulfates and even small amounts of sulfuric acid (most of the sulfuric acid is not free but is combined with metal, especially copper) probably starts the eruption and burning and that the arsenic continues it. Routine chemical determinations of sulfuric acid in different lots of this arsenic powder material and in different parts of the same lot disclosed that the sulfuric acid content is relatively high in some batches. Actual testing proved that exposure to Beattie arsenic may produce burning in a couple of hours although, in some cases, not until eight hours. Therefore, in order to prevent this type of irritation (should it be necessary to continue using Beattie arsenic), quick rotation of the employee will be necessary or some protective formula evolved.

It is well known that arsenic trioxide is very corrosive to the skin whereas arsenic pentoxide (oxidized arsenite), such as in lead arsenate, is not very irritating. Zinc arsenite and paris green are definite skin irritants and, therefore, in the manufacture of paris green, for example, Beattie arsenic has not been used but rather Anaconda arsenic which is 80 to 85 per cent pure. However, in certain aspects, the pure white arsenic could be worse than the others, at least theoretically, in that it is light and powdery. If it were not for the fact that mechanics check over the lateral worm from the large hopper to the smaller one, preventing escape of dust, more skin irritations would probably be in evidence.

It seems, therefore, that the introduction of Beattie arsenic is the immediate cause of this new type of skin lesion which is so irritating that employees become disabled before severe skin manifestations can present themselves. If the Beattie arsenic must be used (in former years, only refined arsenic was used), it is necessary that protective measures be evolved. To that end, it was learned from the Beattie mines that freshly precipitated ferric hydroxide acts both as a protective and as a means of counteracting irritation and is successful in 95 per cent of the cases. Moist ferric hydroxide with magnesium oxide followed by the drinking of large amounts of water has long been an arsenic antidote when taken internally.

It is interesting that the older employees were not as sensitive to Beattie arsenic and that most of those who lost time were among the new men. Although it is suspected that the two men reported in this communication were careless and, therefore, could have contributed to some of their difficulties, a careful check of the preventive measures left no doubt that they were routinely carried out. There were cases in which the safety instructions were not clearly understood but the procedure of typing instructions as well as giving them by word of mouth was considered.

The workers, themselves, are often observant and from them, several safety measures were learned. For example, some of the men learned that taping of the trousers around the ankles prevented the more severe types of scrotal irritation, and a suspensory, worn for protection, often caused a breakdown of tissue by rubbing. A tight fitting sweat shirt protected the wrists and often, by itself, would cure a previous

metaphosphate produced markedly higher blood levels than capsules containing either the corresponding base or the hydrochloride alone. In addition, the average levels derived from the tetracycline base or the chlortetracycline base were higher than those produced by the corresponding hydrochloride though lower than those resulting from the mixture containing the base and sodium metaphosphate. In the study with chlortetracycline[6] capsules containing a mixture of the hydrochloride and sodium metaphosphate were also included in the crossover, and the average levels produced by these capsules were the same as with the mixture of chlortetracycline base with sodium metaphosphate.

Although the enhancement of blood levels of tetracycline by phosphate, either complexed to the tetracycline or mixed with the base or the hydrochloride, thus seemed fairly well established, some doubts still remained because certain reliable observers (including many whose results have not been published) failed to confirm the findings with the materials and methods they used. Further confusion seemed to be added by a subsequent report of Welch et al.,[7] who, in repeating a crossover study with capsules of tetracycline phosphate complex and tetracycline hydrochloride with and without sodium phate, found [illegible]

"...Tetracycline hydrochloride and citric acid, in an encapsulated mixture, produced higher serum concentrations and greater urinary excretions, and hence better absorption of tetracyclines, than any other preparation studied..."

[illegible] last mentioned paper of [illegible] et al.[7] indicates that in their study the capsules [illegible] tetracycline hydrochloride, chlortetracycline hydrochloride and tetracycline phosphate complex all contained dicalcium phosphate as a filler, whereas the capsules containing citric acid and sodium hexametaphosphate did not contain any dicalcium phosphate. This could clearly explain the discrepancies noted in that study. Likewise, the inconsistencies in other studies may very well have been due to the presence of calcium as fillers in some of the capsules and not in others.

[illegible] published simultaneously with the last mentioned report of Welch et al.[7] These data were based on thoroughly controlled studies both in rats[8] and in man[9] and include additional findings that serve to explain, fairly conclusively, the various discrepancies that have been mentioned.

The experiments in rats[8] were carried out to study the effects of citric acid, dicalcium phosphate, sodium metaphosphate, food, oil and sorbitol on the serum antibacterial activity produced by the administration of tetracycline hydrochloride or tetracycline base. Citric acid administered in equal weight with tetracycline hydrochloride gave the highest concentrations of all the preparations studied. No enhancing effect was obtained from citric acid when given with tetracycline base. Dicalcium phosphate and food resulted in lower, and sodium metaphosphate in higher, serum antibacterial activity than was observed in their absence. Oil and sorbitol did not interfere with tetracycline absorption.

Dicalcium phosphate is widely used as a filler in various capsules, including those of the tetracyclines. The authors cite a large number of other studies that implicate the presence of calcium ions as the cause of the reduced absorption of tetracyclines and show that citric acid can partially neutralize this effect. The depressing effect of food on the serum levels of tetracycline is likewise explained by the goodly amount of minerals contained in commercial laboratory diets, and they postulate that the multivalent cations may be responsible for the poorer absorption of the drug. The authors could not explain the failure of citric acid to enhance serum concentrations when administered with tetracycline base in contrast to its marked effect when given as the hydrochloride. However, they hypothesized that the ability of citric acid to enhance serum levels of tetra[illegible]line is [illegible] its ability to form complex[illegible] unavailable for [illegible]

This, however, fails to explain the most recent findings of Welch and Wright,[10] who compared the absorption of three capsules, each containing 250 mg. of oxytetracycline hydrochloride — one without any adjuvant, one with 250 mg. of citric acid and the third with 380 mg. of sodium hexametaphosphate; no other filler was contained in any of these capsules. In triple

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ACHROMYCIN*V

TETRACYCLINE HCl BUFFERED WITH CITRIC ACID

is

tetracycline and citric acid

Lederle

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK
*Reg. U. S. Pat. Off.

eruption. Good shoes, without any cutouts, would prevent dust from irritating the feet. A simple rinse was not helpful but thorough washing and soaking for at least fifteen minutes (thus actually cleaning the pores of any dust) prevented skin irritation. There were also many more such suggestions.

The foremen also contributed to prophylactic measures. For example, wrist irritations were traced to a foreman's observation that, while the employee was putting on his rubberized gloves, he would pull one protective glove on carefully, only to use that glove (often soiled) to pull the other one on. On several occasions, employees were found to place clean gloves over soiled hands. One foreman learned, from experience, that it was desirable not to use the respirator outside the car. He found that fresh air was better than a tight respirator, especially, if there was perspiration for if sweat appears along the respirator, the eruption is worse than if no respirator is used at all. He found that a protective coating of vaseline prevented the more severe eruptions providing the employee was removed from the source of irritation. In fact, Collier records it as a well established fact that masks cannot be worn when working with arsenic since a rash forms under the facepieces. However, actual work, in the field, leads to certain variations of apparently accepted methods because internal absorption must be considered. On several occasions, a foreman observed that sudden eruptions were found to be due to physical contact such as getting material on gloves and then wiping the face for sweat, etc. It was also suggested that certain eruptions, such as those occurring around the scrotum, may not be due to contact with the dust alone or at all but may be due to a systemic condition (sweat, etc.). As proof, the experiment was tried whereby an employee would be extremely well protected with two pairs of pants and overalls and yet would break out. On the other hand, the failure to develop skin irritations around a sweaty hatband, where there is also friction, would be hard to explain except to say that certain areas such as the scrotum, nasal crevices, thin skin around the eyes, around the chin, lower lip and back of the neck are more susceptible.

In the future, we hope to clarify some of these problems and, in such a study, it would appear that patch testing would offer a fairly reliable method of determining sensitivity. As Johnstone has pointed out, the patch test technique may not only discover latent allergic states but may aid in discovering whether pre-existing skin conditions predispose to the development of an industrial dermatitis. Often, the diagnosis of an allergic state may prevent some of the more serious skin reactions which occasionally occur. In addition to patch testing, case history analysis and elimination routines are also essential. Sometimes, as with the determination of cosmetic sensitivity, clinical testing on the site of the irritation itself may be necessary, especially in those cases of negative patch testing.

Much has been written about the importance of careful selection of workers. The susceptibility of blonds and fairhaired individuals, as well as the seborrheics, the asthmatics and those subjects to urticaria, is well known. The importance of good general health and good personal hygiene cannot be overstressed. In fact, the problem of industrial dermatoses is such a frequent one that it must constantly be restudied even at the expense of some repetition.

Summary

This report is made because we found ourselves confronted with a type of skin eruption which seemed to cause more loss of time and distress than had been observed in all previous years. It was found that a change in the type of arsenic used was responsible. However, the study gave both workers and foreman an opportunity to offer suggestions, some of which seemed worth recording in this report.

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MEDIASTINAL DERMOID REDUCED IN SIZE BY 1500 ROENTGEN RAY UNITS OF THERAPY

E. A. MUELLER, M.D. AND O. C. BRANTIGAN, M.D.*

The large variety of mediastinal masses that may occur and the difficulty of diagnosis by means other than surgical thoracic exploration emphasizes the necessity of imparting all knowledge concerning the behavior of these masses to the internist as well as the surgeon. An unexpected response to radiation therapy applied to a superior mediastinal dermoid is here reported.

The authors and all who saw the patient in consultation believe that single, solitary masses in the mediastinum are best treated by surgical excision, even if malignant. However, when multiple mediastinal masses are encountered, or when by roentgenography there is revealed a nodulated mass on both sides of the mediastinum, the probability of primary lymphatic malignancy or metastatic malignancy is so great that it is believed that thoracic exploration should be avoided. It is almost certain that excision would be of no help to the patient.

A careful diagnostic study is indicated in all abnormal conditions encountered and it is equally imperative in mediastinal masses. From all the diagnostic tests and examinations available, the diagnostic test application of 1000 roentgen ray units to multiple or nodular masses of the mediastinum was selected. The small amount of radiation therapy used is thought to in no way affect the disease if it is not lymphatic. The tumor will not be made more adherent; the operation, if needed, will not be more difficult; and the time involved will not be important in the prognosis of other mediastinal masses unless the patient is in acute distress when first seen. Any condition other than lymphatic disease will not become regressive with such a small amount of therapy. If the disease is lymphatic, regression can be expected in fourteen to twenty-one days. It should be added that at no time did the authors believe complete roentgen ray therapy should be applied to undiagnosed mediastinal masses merely on the chance that it might be helpful.

After a comprehensive diagnostic study, in the patient being reported a diagnostic test dose of 1500 roentgen units of therapy was applied to a nodular appearing mediastinal mass. In about fourteen days it showed a considerable decrease in size. For this reason it was thought to represent a lymphatic tumor and therefore roentgen ray therapy was given in adequate amounts. The mass further decreased in size but since it did not disappear the lesion was surgically excised. To the great surprise of everyone concerned it was found to be a mediastinal dermoid.

CASE HISTORY

P. K., a twenty-seven year old white married woman, upon routine chest roentgenogram at her place of employment in April of 1956, was found to have a nodulated mediastinal mass. She was referred for diagnosis and treatment. The past history was unimportant. The family history revealed that a brother died at the age of eighteen years as the result of a malignant teratoma of the testicle. The present illness began with chest discomfort when it became known that the routine chest roentgenogram revealed a mass. There were no other symptoms. The inventory of systems was entirely normal. The physical examination was noteworthy only because it was so completely normal.

The original routine chest roentgenogram and subsequent films taken before treatment were all identical, revealing a nodulated mass in the

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superior mediastinum presenting on the right side but also visible on the left side. By fluoroscopic examination the mass could not be separated from the pulsating aorta. The lung fields were normal, as were the other aspects of the roentgenogram. On lateral view, the mass was not demonstrated with certainty. By oblique film it was anteriorly placed. A barium study of the esophagus proved negative. An angiocardiogram revealed the mass was not connected to the plainly demonstrated great blood vessels of the mediastinum. A bilateral cervical node biopsy was done and the nodes were found to be normal.

In the belief that the nodular mass was a lymphatic tumor arising in the anterior mediastinal lymph glands, a test dose of 1000 roentgen ray units was to be applied over the mass. However, approximately 1500 roentgen ray units were given. In fourteen days the mass revealed a definite decrease of 8 or 9 mm. from the original size by roentgenography. Because of the reduction in size it was thought to be a lymphoma and accordingly an additional 1000 roentgen ray units were applied to the tumor. One month later there was no further reduction in size, which of course, was unsatisfactory. After consultation with the internist, surgeons, and two radiologists, a decision was made to surgically extirpate the mass. On September 24, 1956 the thorax was explored through a right chest incision. A cystic mass was found anterior to the superior vena cava, resting medially and superiorly on the arch of the aorta. The lung was adherent to the mass but there was a good cleavage plane elsewhere. The postoperative course was uneventful. The patient has remained well. The gross surgical and pathologic diagnoses were "Benign Dermoid Cyst of the Mediastinum."

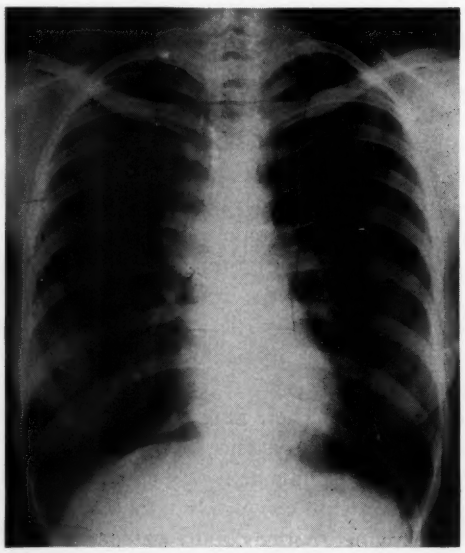

FIG. 1. A PA film of the chest just prior to application of the test dose of roentgen ray therapy. The dotted line indicates the reduction in size after this therapy.

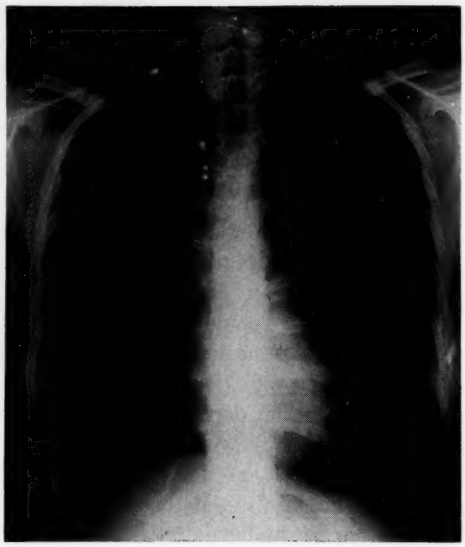

FIG. 2. A PA film of the chest after roentgen ray therapy showing reduction in size of the mediastinal mass but not its complete disappearance. Exploratory thoracotomy was indicated.

DISCUSSION

In medicine there is no substitute for careful diagnostic study and there is no doubt that the more accurate the diagnosis, the more likely that the proper and effective treatment will be administered. In the case described, it is obvious

that the mass was not nodular and, therefore, not multiple, nor did it represent a conglomerate mass of lymph glands as suspected in the beginning. Yet, if the suspected nodular mass had been conglomerate lymph glands of lymphosarcoma or Hodgkin's Disease, roentgen ray therapy would have been the treatment of choice for the patient. Therefore, it is the belief of the authors that the application of the radiation test to multiple mediastinal masses is indicated if the diagnosis cannot be made by means other than thoracotomy. The diagnostic test dose of roentgen ray should, however, be kept at 1000 roentgen units, and no longer than twenty-one days should be allowed for the response. There is no reasonable explanation for the reduction in size of the dermoid cyst. At surgery there was no evidence of past infection about the mass, nor was their evidence of lymph glands that might have been enlarged prior to radiation. Such a reduction in the size of a dermoid cyst has not been referred to previously and would not have been expected or predicted.

Conclusion

A patient is presented whose nodular bilateral mediastinal mass showed a definite decrease in size following 1500 roentgen ray units of therapy. By surgical excision the mass proved to be a benign dermoid cyst.

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CAPILLARY FRAGILITY AS A CONTRIBUTING CAUSE OF POST-PHLEBITIC LEG ULCERS

VERNON H. NORWOOD, M.D.* and JAMES C. OWINGS, M.D.†

For many years it had been noticed that in the area around ulcerations of the lower leg in patients suffering from chronic phlebitis there was a zone of discoloration which looked like subcutaneous hemorrhage. This area was particularly noticeable in patients where the ulcer was being treated with hot compresses and elevation. The remainder of the foot and leg assumed normal color but these areas persisted for two or three weeks. They were prone to extend upward in a V shape with the point of the V toward the knee, and stopped abruptly with the base of the V at the top of the shoe, the ulcer usually occurring very close to the base of the triangle. It was not unusual to notice other small areas of discoloration scattered over the lower leg and much more common in the lower third of the leg. About ten years ago, we were fortunate enough to see such an area of discoloration before an ulcer occurred. About three days later the patient returned and at that time the center of the discolored area was devitalized and within two more days had been cast off, forming a rather punched-out ulcer about the size of a dime.

In considering these observations, we felt that local circulatory conditions of the skin deserved investigation. A study of the general capillary resistance of the skin was suggested.

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We felt that there must be an unusual degre of weakness in the capillary walls which allowed either spontaneous hemorrhage into the tissue or such hemorrhage to be caused by very slight injury. A hemorrhage occurring in tissue already poorly nourished and poorly supplied with blood would certainly favor death of the tissue in the center of the hemorrhagic area and this is what had been observed clinically. We, therefore, felt that if these patients proved to be suffering from excessive capillary fragility, it would be strong evidence that this condition was a contributing factor in such recurring ulcerations.

Technique of Testing for Capillary Fragility

The technique used was the commonly accepted principle of obstruction to venous flow, producing congestion and back pressure in the venous and capillary vessels. After determining the systolic and diastolic blood pressure, the blood pressure cuff was inflated to a point midway between the diastolic and systolic pressures and maintained at this pressure for fifteen minutes.

A circle one inch in diameter was marked on the flexor surface of the forearm one inch below the crease of the elbow. After release of the blood pressure cuff the number of petechial hemorrhages within this area was counted. In serial counts it was important to maintain the location of the counting area constant for the petechiae are more abundant, or at least, are more readily recognized in the areas where skin is thin, and consequently, are more abundant in the actual area of skin creasing.

Fragility was also tested by means of an instrument distributed by the Rexall Drug Company, known as the Petechiometer, which applies a constant negative pressure by means of a cup ¾ of an inch in diameter, which is applied for one minute. The normal capillary resistance was considered to show eight or less distinctly identifiable petechiae in the test area by the blood pressure cuff method and five or less by the suction cup method.

In the more extreme degrees of fragility, the test area would show lesions too numerous to count, which were recorded as greater than one hundred. Between this level and the normal level, all gradations were found. In general, the thicker-skinned individuals tended to show a lesser response to the suction cup than to the blood pressure cuff, but in most individuals, the results of the two methods ran an essentially parallel course.

Medical Treatment of Capillary Fragility

The patients who showed an increase in the degree of capillary fragility were placed on a dose of ascorbic acid which ranged from one hundred to five hundred milligrams, three times a day, accompanied by Rutin in a dosage of twenty to sixty milligrâms three times a day. A dosage of one hundred milligrams mixed tocopherols daily was used when evidence of active phlebitis was present. The improvement in these cases seemed distinctly more rapid when this vitamin was included (Table 1).

Comment

Every case tested showed evidence of capillary fragility of a degree that seemed to be in direct proportion to the activity of the residual phlebitic process of the individual being tested. All of the cases had the ordinary treatment of either bed rest and elevation, or the application of unna paste cast, followed by pinch grafts to the ulcer when necessary in addition to the medical treatment described. They all healed and were kept under elastic support after healing. In every case where there was a recurrence the patient had either stopped taking the medication or reduced the amount to the degree that allowed capillary fragility to return. This has happened as much as three times in some of the cases in this series. We have not seen recurrence in the presence of normal fragility.

TABLE 1

Degree of Capillary Fragility and Response to Treatment

Patient	Date	Status of Ulcer	Capillary Fragility Test		Medication
S	11/53	Healed	C:4	P:7	Rutin 20 mgm. B.D., Tocopherol 50 mgm. Q.D.
	2/54	Healed	C:4	P:12	Same as above.
	7/54	Active	C:40	P:60	No med. since. Feb.—Started on Rutin 40 mgm., T.I.D., Ascorbic Acid 250 mgm. T.I.D., Tocopherol 50 mgm. T.I.D.
	9/54	Healed	C:11	P:10	Same as above.
	4/55	Active	C:20	P:40	Rutin 40 mgm. T.I.D., Ascorbic Acid 250 mgm. T.I.D. Tocopherol 50 mgm. B.D.
	6/55	Healed	C:2	P:4	Same as above.
	11/55	Active	C:7	P:17	Rutin 40 mgm., T.I.D., Ascorbic Acid 250 mgm. T.I.D., Tocopherol 50 mgm. B.D.
	7/5/56	See med.	C:15	P:18	Some capillary hemorrhages above ulceration. Rutin 60 mgm. T.I.D. Ascorbic Acid 250 mgm. T.I.D., Tocopherol 50 mgm. B.D.
	7/31/56	Skin clear	C:3	P:5	As above.
	1/57	Skin clear	C:3	P:5	Reduce Rutin to 40 mgm. T.I.D.
	8/57	Sed. med.	C:14	P:18	Slight capillary damage. Increase Rutin to 60 mgm. T.I.D.
	9/57	Sed. med.	C:3	P:3	As above.
R	7/51	Active	C:100+	P:100+	Ascorbic acid 100 mgm. T.I.D., Tocopherol 50 mgm. Q.D.
	8/51	Active	C:50	P:60	As above, plus Rutin 20 mgm. T.I.D.
	9/51	Healing	C:20	P:60	Ascorbic acid, 200 mgm. T.I.D., Rutin 40 mgm. T.I.D. Tocopherol 50 mgm. Q.D.
	6/52	Healed	C:6	P:12	Continue as above.
	3/56	Active	C:35	P:50	No medication for 1 yr. Started on Ascorbic Acid 200 mgm., T.I.D., Rutin 40 mgm. T.I.D., Tocopherol 50 mgm. T.I.D.
	6/56	Healed	C:5	P:5	Reduce Ascorbic Acid to 100 mgm., T.I.D., Tocopherol to 50 mgm. Q.D.
	6/57	Active	C:20	P:25	Ascorbic Acid 300 mgm., T.I.D., Rutin 40 mgm. T.I.D. Tocopherol 50 mgm. Q.D.
	9/57	Healed	C:10	P:12	
R. O.	1/50	Active	C:80	P:100+	Ascorbic Acid 100 mgm., T.I.D., Rutin 40 mgm. T.I.D.
	5/50	Healing	C:40	P:80	As above, with Tocopherol 50 mgm. B.D.
	8/50	Healed	C:30	P:45	No med. for 2 months. Resume as above.
	6/52	Healed	C:7	P:4	As above.
	9/52	Healed	C:10	P:12	Ascorbic Acid 200 mgm., T.I.D., Rutin 40 mgm. T.I.D.
	4/53	See med.	C:25	P:32	Slight hemorrhage in skin. Med. as above plus Tocopherol 50 mgm. B.D.
	12/53	Healed	C:8	P:10	As above.

It is interesting to speculate concerning the source of the increased fragility. None of the patients had deficient diet and none any digestive disturbances that might have interferred with the normal absorption of either Vitamin C or E. It would seem that these particular individuals need an excessive intake of these two vitamins for an indefinite period in order to maintain the level necessary to keep their capillary walls in normal condition. One wonders if

such an unrecognized inability to maintain a normal level of these vitamins might have been the source of the original phlebitis. In other words, we may be dealing with some constitutional defect which causes capillary fragility, and in turn, makes certain people more subject to phlebitis and the ulcerations that occur in its late phases. It would be interesting to run fragility tests on a large series of cases, and if any of them were positive, to see whether during their lives, they developed phlebitis. We should also run the test on all acute phlebitis cases to see if fragility occurs in the initial stage of the disease.

SUMMARY

A series of post-phlebitic leg ulcers has been followed over a period of one to ten years, and it was found that all of them showed increased capillary fragility which could be controlled by appropriate vitamin therapy. Ulcerations recurred only when the capillary fragility again became abnormal.

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METHODS FOR REDUCING PAIN IN PROCTOLOGICAL PROCEDURES

Technique and Results in 950 Cases

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I published a preliminary report on this same subject in 1945† giving the technique and the results in my first 72 cases. This report will attempt to bring this work up-to-date with the addition of 950 cases operated upon during the past twelve years.

Rectal surgery can be a very painful and distressing procedure if considerable thought and care is not given to every possible means of reducing the patient's discomfort. It is so lightly thought of by the average surgeon that very little effort is expended in this direction. The pain and discomfort have such a firm root in the public mind that in several instances after I have examined the patients and made arrangements for their operations, they have gone home and talked to their friends and family and been so discouraged by this conversation that they have actually called up and said that they just could not go through with the operation. It is necessary to gain the patient's confidence and allay his fears at the very beginning of contact with him. One of the best ways to do this is to be very gentle and careful in doing every part of the diagnostic examination. I have often seen patients with a fissure in ano who had been so severely hurt during a previous examination that it was almost impossible for me to persuade them to let me examine them at all. However, if one is very gentle and asks the patient to strain against the examining finger at the same time keeping the pressure away from the tender area, it is always possible to examine such a patient with very little if any pain. Using the same

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† Methods for Reducing Pain Following Hemorrhoidectomy, Technic and Results in Seventy-two Cases, Archives of Surgery, Vol. 50, pp. 293–295, June 1945.

method, I have never had a patient in whom I was unable to pass the ordinary anoscope in my office, thereby allowing me a clear view of the fissure. Straining relaxes the sphincter and if pressure is kept away from the tender area very little pain is produced. On the other hand, if you once hurt this type patient, the sphincter goes into spasm and it is almost impossible to do any further examination. During sigmoidoscopy one also has to be slow and careful, sometimes waiting several minutes for a spasm of the bowel to relax, and as the scope is removed make sure the patient expels as much of the air as possible before its complete removal. Otherwise a good many of these patients will have crampy pain following the examination.

In order to cut down the postoperative pain all of these patients which includes those having hemorrhoids, fissures, a combination of these two, and uncomplicated fistulas, have had subcutaneous injection of 95 per cent alcohol around the anal margin. The patients are shaved, thoroughly scrubbed around the operative field with 70 per cent alcohol, followed by two applications of Scott's Solution (alcohol acetone and mercurochrome) and the field kept moist with this solution during the injection of the alcohol. A tuberculin syringe with one-half inch (1.3 cm.) hypodermic needle is used for the injection. It is essential to put only one or two drops of alcohol at any one puncture site. For this reason a tuberculin syringe is used, because with a syringe of this caliber one can easily estimate the amount or actually measure it if one wishes. A half-inch needle is used because, while one must be sure to place the alcohol beneath the skin, it is easier to control the depth if the needle is short. If a long needle is used one may not only fail to get the alcohol under the skin where he wishes it, but may damage the nerve fibers entering the sphincter muscle if the needle goes too deep. The amount of alcohol necessary is usually not more than 3 cc., unless there is associated pruritus ani. I have used as much as 30 cc. in a case with extensive pruritus without any complication.

The injections are made in concentric circles starting at the anal margin, each circle being about 0.5 of a centimeter wider than the preceding one, and three circles being used in the average case. The puncture wounds in each individual circle are made about 0.5 cm. apart. It is necessary to make sure that the flow of alcohol from the syringe does not require any appreciable pressure, because if force is necessary it usually means that the needle is imbedded in the skin of the buttocks or anal canal; if injection is made under these circumstances, a slough is likely to occur. If the patient has a relaxed sphincter from long-standing prolapsing internal hemorrhoids, one has to be particularly careful about the depth of the punctures in order not to increase the relaxation by damaging the nerve supply to the sphincter. On the other hand, if the patient has a very spastic sphincter in association with a fissure and one wishes to produce temporary relaxation, this can usually be done by making two or three injections to the full length of the needle at 5 and 7 o'clock, with the patient in the lithotomy position. If much edema or a hematoma is produced by the injections, it has been my custom to puncture such an area with a small bladed knife and spread the puncture wound a little bit with a Halsted clamp.

The operation is then proceeded with. I will not go into the technique of fissure or fistula operations because I do not believe that much can be done to reduce pain by any modification of the usual technique in these two procedures. The pain following hemorrhoidectomy can be considerably reduced by the following technique because it leaves almost no raw surfaces. The hemorrhoid mass is picked up by two Allis clamps, one near the anal margin and the other as high as feasible in the anal canal. A figure of eight suture of No. 0 plain catgut is used to transfix the hemorrhoid artery and vein just above the upper Allis clamp. The mucosa is then incised and the hemorrhoidal vessels, to-

gether with any excessive mucosa, are excised from above downward and the hemorrhoid bed closed by using the same suture that was used for the transfixion as a continuous lock stitch after all actively bleeding points have been ligated or transfixed. Great care is used not to catch the edge of the mucosa with this running stitch, but instead place it in the same manner as one would a subcuticular stitch, that is, so that the mucosa is drawn together over it. This stitch is not carried clear to the skin margin because I feel that the approximation of the perianal skin edges, with subsequent infection and edema, has considerable bearing on the postoperative formation of skin tags. Each group of hemorrhoids is treated in this same manner. Any veins that remain between these linear incisions, either externally or internally, are crushed and partially evulsed by undermining the skin or mucous membrane, as the case may be, with a Halsted clamp. If hematomas are produced during this procedure, they are incised, evacuated, and the bleeding points tied.

No rectal plug of any sort is used because not only is such a plug painful at the time of removal, but by causing reflex spasm of the sphincter it interferes with voiding. It also prevents primary union of the operative sites by keeping the raw areas open, thereby admitting gross infection during the immediate postoperative period. If one leaves adequate mucosa and skin, there is no danger of stricture formation. It is hard to believe that the mere stretching of a circular muscle like the sphincter ani for a 24-hour period is likely to produce relaxation of this muscle for any appreciable period, this being one of the usual reasons given for the use of a rectal plug. Certainly there is no justification for using a plug to control hemorrhage, because if bleeding is controlled at the time of operation it is no more likely to start up again in a rectal incision than in any other incision. In fact, it would seem that the removal of such a plug, plus the infection carried down to the fresh operative field by its contact with the gauze, is probably the source of most secondary hemorrhages rather than a preventive. It, therefore, seems to me that the use of the rectal plug is more a relic from the past than a logical surgical procedure, and for this reason its use should be discontinued. The only dressing used following these operations is loose gauze held in position by perineal T binder.

Postoperatively these patients were given one ounce (30 cc.) of liquid petrolatum night and morning; Sitz baths were started the morning following the operation and repeated twice daily until healing was complete. No cathartics were used, but if the patient had not had a spontaneous movement by the third or fourth day an oil retention enema was given. Nothing more seriously disturbs the postoperative course of a patient who has had a hemorrhoidectomy than a strong cathartic. These patients were kept on a liquid diet until their bowels began to move, which was usually three or four days, postoperatively in order to insure a minimal amount of intestinal residue. One wonders if it might not be better still to give camphorated tincture of opium, rather than liquid petrolatum, together with liquid diet and sulphathalladine in order to allow primary healing to occur before the first movement takes place. The index finger was usually gently passed through the operative field on about the seventh or eighth day by resting the finger gently against the anal margin and having the patient strain against it. The sphincter is relaxed by the patient straining and the finger slides in without causing reflex spasm. The same procedure was carried out at weekly intervals until healing was complete. I am not sure whether this was necessary, but because of the fact that in a few cases adhesions were found to have occurred between raw surfaces causing partial obliteration of the anal canal, I have been afraid to discontinue it.

There were ten cases that had a postoperative abscess, necessitating incision and drainage. Six

of these ten cases developed a secondary fistula in ano requiring operation for cure. All of the fistulae were superficial and all healed without trouble. I do not consider this number of postoperative complications as any contraindication to the use of alcohol injection for the reduction of postoperative pain.

Relief of pain was somewhat variable. Some patients said that they could not tell they had been operated on. Others still had considerable postoperative discomfort. The reduction in pain was best demonstrated in patients who had had previous rectal surgery without alcohol injection. None of these had any doubt about the difference in the amount of pain they suffered. Because of uncontrollable factors I doubt whether consistently perfect anesthesia can ever be obtained. There were two cases in the series that had significant postoperative hemorrhage. One was recognized and controlled by transfixing the bleeding point under anesthesia, and the other one bled to death into the large bowel during the night without being recognized. The patient that died had huge rectal veins in association with ascites and cirrhosis of the liver, the hemorrhoidectomy having been done to try to control repeated severe hemorrhages from the rectum. He also had asthma and it was thought that the suture was blown off during a spasm of coughing. There were no instances of incontinence in this series of cases. Neither have there been any cases of postoperative stricture.

Rectal surgery has lagged behind most operative procedures in technique as exemplified by inadequate exposure, indiscriminate excision of tissue and poor control of hemorrhage. Where else in present day surgery does one see gauze packing used for control of hemorrhage? Practically no attempt has been made to lessen the pain from these procedures, and for this reason patients have rightly come to regard them with dread. Everyone but the patient considers them to be minor surgery, and tends to minimize the discomfort. Patients regard them as a catastrophe, and they have frequently telephoned to cancel their reservation for operation after their friends have told them what they have gone through. Anyone who has had the experience of treating postoperative stricture or incontinence following minor rectal surgery will certainly agree that the utmost care should be taken during these operations no matter how minor they seem in the mind of the operator. There are no more appreciative patients in one's practice than those who have been led to believe they have to endure an ordeal and then find that they can have the necessary operation with practically no discomfort.

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CHEST DIAGNOSIS—A COOPERATIVE EFFORT

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The diagnosis of lung disease calls for cooperation of both the physician and thoracic surgeon. The presence of lung disease is usually determined by symptoms, physical signs, and roentgenology.

The past history will often suggest the etiology as well as chronicity. Habits and occupation are important. Cigarettes with the common end result of bronchitis, emphysema, and perhaps carcinoma of the lung serve as an example.

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The present illness brings out the pertinent symptoms of lung disease. Cough is initiated by irritation of the vagus nerve or its endings. A typical example of this protective mechanism is seen in cancer of the lung. The bronchus is constantly trying to rid itself of the foreign body or carcinoma by the protective cough. Sputum often accompanies cough in lung disease. Much can be learned from its daily volume, consistency, color, and odor. Smears and cultures for pyogenic bacteria, tuberculosis, and fungus diseases often give a definite diagnosis. Cell studies for carcinoma are at times diagnostic. Dyspnea is frequently present. One must determine whether it is due to lung disease or some other problem. Apprehension, pain, mechanical blockage, diseases of circulation, and disturbances of biochemical and reflex control of respiration, may all contribute to dyspnea.

Many tests are available for office use. Timed vital capacity is most helpful. The normal person should expire 75 per cent of his total vital capacity in one second and 95 per cent in three seconds. Fluoroscopic examination will confirm the physical finding of limited motion of the chest wall and diaphragm. Maximum breathing capacity gives a good estimation of the patient's ability to ventilate. Dyspnea usually occurs when the breathing requirements approach 50 per cent of the maximum breathing capacity.

The differential diagnosis of chest pain requires maximum use of all diagnostic aids. Cancer, heart disease, and tuberculosis must always be considered. Other common chest symptoms include chills, fever, weakness, weight loss, and anorexia. They are frequently related to infections and neoplasms. Physical signs give help but are rarely diagnostic except in acute problems such as lobar pneumonia. Skin tests should be used. Tuberculosis is often ruled out by a negative skin test. Positive tests are of help in the diagnosis of blastomycosis, histoplasmosis, and coccidioidomycosis. Without the help of fluoroscopy and X-ray, all of the preceding diagnostic aids would rarely result in more than a good guess.

In summary, much can be learned from the history, physical examination, sputum, skin tests, and X-ray examinations. If it has not been possible to make a diagnosis from careful medical studies, the thoracic surgeon is called in consultation. He will offer several diagnostic procedures.

Bronchoscopy provides complete visualization of the trachea, the main bronchi, the lobar orifices, and most of the segmental orifices. Bronchial and peribronchial lesions are diagnosed by biopsy. Secretions are available for cell study, smears, culture, and sensitivity studies. Bronchoscopy will result in a diagnosis for approximately 50 per cent of lung cancers. The thoracic surgeon, who is familiar with the individual patient's tracheobronchial tree, is better prepared to deal with his surgical lesion. The thoracic surgeon is prepared to do a bronchogram, where indicated. This simple procedure gives a complete outline of the tracheobronchial system. Bronchial spasm, dilation, and blocks are identified. The phrenic fat pad with the prescalene nodes can be easily removed under local anesthesia. It is especially valuable in the diagnosis of metastases in the upper mediastinum, sarcoidosis, and histoplasmosis. A diagnostic pneumoperitoneum is occasionally indicated. This is valuable when it is necessary to obtain clear X-rays of lesions bordering on the diaphragm. The simple procedure of thoracentesis is often diagnostic when fluid is present. Thoracoscopy with an optical instrument is rarely of practical use. Lung biopsy done through a small intercostal incision is used where diffuse bilateral pulmonary disease is present. The diseased lung is easily reached for biopsy. The procedure is quick and nonshocking. It is especially useful for the diagnosis of pulmonary fibrosis, silicosis, sarcoid, metastatic malignancy, and unusual infectious processes.

The thoracotomy is frequently the final answer to both diagnosis and treatment. At times it is impossible to make a diagnosis until the lesion is completely removed by wedge resection, segmental lobectomy, lobectomy, or pneumonec-

tomy. Contrary to popular opinion, the thoracotomy carries low morbidity and mortality. The procedure is especially valuable in instances of mediastinal tumors, diffuse pulmonary disease, atelectasis, and circumscribed lung disease.

The following cases are examples of the diagnostic procedures used to arrive at a diagnosis:

Case 1. S. P. This 53 year old white male had considered himself in good health until the early part of July 1956. Aside from a mild chronic cough, productive of a little mucoid sputum of seven years' duration, the past history was noncontributory. He had been a two-pack cigarette smoker for about 35 years.

The present illness began in an insidious fashion in July. The chronic cough became much more frequent and persistent, but sputum was not increased. Because of dyspnea, it had been necessary to use three pillows at night for two months. Night coughing attacks had become increasingly frequent. Dyspnea was so severe that the patient was forced to get out of bed and gasp for breath at an open window. Dyspnea was also present when walking. Wheezing had been present with severe attacks of dyspnea. There had been no pain. Fatigue was continually present and night sweats had been frequent. Weight loss amounted to ten pounds and anorexia was present.

The chest examination showed good ventilation and this was confirmed by a normal vital capacity. Auscultation disclosed a persistent wheeze over the lingula of the left upper lobe. Blood and urine studies were within normal limits, and the tuberculosis skin test was positive. An electrocardiogram was normal. The sputum examination showed no pathogenic bacteria. Chest fluoroscopy and X-ray, including a left lateral film, showed a minimal infiltration in the region of the lingula. Small blebs were present in both upper lobes. A diagnosis was not possible without thoracic surgical help.

On September 13, 1956 bronchoscopy, under topical anesthesia, showed a normal tracheobronchial tree with the exception of the lingula. Mucus was present in the inferior segment of this bronchus. Cell study, smears, and cultures were negative on the aspirated material. A bronchogram of the left lung was done on September 17, 1956. The inferior lingula segment was blocked. The left chest cavity was explored through the third interspace. Aside from a few blebs in the upper lobe, the disease was confined to the inferior segment of the lingula. Here a hard mass, two centimeters in diameter, was palpated. This was removed by wedge resection for frozen section. No carcinoma was present. Permanent section showed a chronic granuloma of the lingula. No bacteria or fungi were identified.

The postoperative course was uneventful and the patient was discharged on the ninth postoperative day. He is now in good health with no dyspnea, cough, wheeze, or other symptoms.

Case 2. J. G., white male, age 57, cigarette smoker, cabinet worker. Patient came to office suffering with pains in the chest and harassing persistent cough. Sputum was clear. He had lost some weight. He was feeling quite tired after a day's work.

He was given cough medicine, which afforded no relief. He had precordial pains and was relieved with nitroglycerine gr. 1/150 and peritrate. It was thought the patient had coronary insufficiency. He did have symptoms of an arteriosclerotic heart. A tentative diagnosis of coronary heart disease was held. However, with the symptomatology of cough, no fever, loss of weight, we thought that the patient might have a lung lesion.

He was sent into the hospital on February 24, 1957 for evaluation. Chest X-rays were done, lung fields found clear. Bronchial washings, direct smear showed no Koch Bacillus. The cytology for carcinoma was negative. Bronchoscopy and biopsy were done. These findings were negative. Diagnosis was bronchitis.

A bronchogram was done on March 17, 1957. Visualization was limited to the right lung, with just a little spill of the dye on the left side. Filling indicated no specific changes, with rather

good definition of the right bronchial tree. He was sent home. However, he still had his cough and a severe burning in the throat. He did not gain weight and he became very despondent. He started to have hemoptysis. As the patient was getting worse, it was thought best that he be readmitted.

X-ray of the chest revealed a rather well delineated mass-like area of homogenous infiltration in the apical segment of the upper right lobe, associated with prominence of the right hilum and a widening of the right superior mediastinum, probably due to adenopathy. The left lung was clear. The aorta was sclerotic. The heart, diaphragm, and bony thorax were normal. The laminagraphic studies of the mediastinum and right upper lobe revealed a rather large (5 cm.) mass in the right upper lobe and right hilum, displacing the bronchus to the right upper lobe, slightly inferiorly, and also compressing the bronchus. The impression was: Bronchogenic carcinoma of the right upper lobe with right hilar and right mediastinal metastases; arteriosclerosis of the aorta.

Another chest X-ray was done on July 24, 1957, for comparison with the films taken March 7, 1957. Fairly extensive changes were present in the right chest; for the most part these suggested pleural thickening and pulmonary fibrosis. However, there was a relatively low homogenous density in the superior portion of the shoulder periphery that suggested a mass. The left chest was clear. The preoperative diagnosis was: Carcinoma of the upper lobe, right lung, with mediastinal gland involvement. Operation (July 24, 1957): Thoracotomy, mediastinal pluerectomy, excision of the mediastinal gland.

Laminagraphic studies definitely helped to make this diagnosis. Clinical diagnosis was: Carcinoma of the upper lobe of the right lung. Pathological diagnosis: Bronchogenic carcinoma of the upper lobe of the lung and metastasis to the mediastinum.

Note. The specimen showed cells so anaplastic that it was not possible to definitely make a diagnosis of primary carcinoma of the lung; however, the findings were compatible with lung carcinoma.

Case 3. This patient, R. M., came to the office complaining of vague pains in the chest and abdomen.

The following was done in the office:

Intravenous Cholangiogram. (6/14/57) Intravenous dye showed vague filling in the gallbladder. There was ill-defined haziness in the fundus of the gallbladder which may well have been due to stones. The cystic and common ducts were seen and they appeared to be normal. The epigastrium showed a tantalum plaque lying in the anterior abdominal wall.

Barium Enema followed by a Gastrointestinal Series. (6/15/57) The colon was readily filled with barium and was efficiently evacuated. Its haustral and mucosal patterns were normal. No organic lesion was seen in the colon. No masses were demonstrated in the abdomen. The esophagus was normal in size and in its course. Its mucosal pattern was normal. There was no evidence of a hiatus hernia. The stomach was normal in size, shape, and position. Its rugal folds were intact. The pylorus functioned normally. The duodenum showed normal outlines and a normal mucosal pattern. At the end of five hours the stomach was completely empty and the barium was found in the lower jejunum, ileum, and colon.

Fluoroscopic and Radiographic Examination of the Chest. Dimensions of the cardiovascular shadow: Width of the aorta, 5.8 cm. Width of the right side of the heart, 5.0 cm. Width of the left side of the heart, 10.0 cm. Transverse diameter of the chest, 32.2 cm. The heart was moderately enlarged to the left. The aorta showed normal dimensions. The lower lung regions showed congestion. There was enlargement of the right hilus which suggested a tumor mass. Fluoroscopic observation showed normal cardiovascular pulsations and normal respiratory motions.

Case 3, Continuation. This patient, R.M., white

male, age 53, truck driver, was admitted to the hospital on June 21, 1957 because of shortness of breath and precordial pain. He once had an attack of angina pectoris.

X-ray examination on June 22, 1957 revealed some prominence of the hilar structure, bilaterally, but no real parenchymal lung changes. There was no evidence of fluid. The heart was a little full with some prominence of the left ventricle. The diaphragm was smooth and regular.

Impression. The hilar density may have been on the basis of an old bilateral primary tuberculous complex; however, the appearance of the right hilum was sufficient to consider a bronchoscopy.

An X-ray of the chest on July 1, 1957 revealed a marked prominence of the right hilar structure with a suggestion of a mass in the infrahilar area. The lung fields themselves were clear, and there was no evidence of distended aeration. The heart was slightly enlarged.

Hence, it was decided to have laminagraphic studies. These studies revealed what appeared to be a well circumscribed area in the region of the right hilum; slight nodularity was noted in the region of the right hilus proximal to the mass, but it was not believed there was any definite evidence of hilar extension. The mass was located in the region of the bronchi to the right middle lobe or superior segment of the right lower lobe. No evidence of endobronchial narrowing was noted.

Impression. Bronchogenic neoplasm in the right infrahilar area without evidence of bronchial obstruction, and no definite evidence of hilar extension.

Chest Fluoroscopy. (7/8/57) There was some enlargement of the left ventricle, as previously noted on films. The aorta also showed a little widening, elongation, and tortuosity. Slight reduction of the retrocardiac space was noted on the lateral position.

Another X-ray examination was made on July 25, 1957 and compared with the films on June 22, 1957. Homogenous density was seen in the right shoulder periphery that suggested either encapsulated fluid or pleural changes. Just below this area was a band of density suggesting an area of atelectasis. The left chest was clear.

Another chest X-ray was taken on August 1, 1957 and compared with the one on July 25, 1957. The right lung superiorly was collapsed, with no markings extending above the level of the fourth rib, counting posteriorly. The homogenous density that existed previously in the right shoulder periphery was no longer demonstrable. The left chest continued clear. (This was a postoperative film.)

A bronchoscopic examination was made.

Preoperative Diagnosis. Neoplasm in the lower lobe superior segment.

Pathologic Laboratory. (7/22/57) 1. Clinical diagnosis: Carcinoma of the lung. 2. Pathological diagnosis: A lymph node showing nonspecific fibrosis and granulomatosis. Inflammation. Etiology undetermined, suggested possibility of Sarcoid. Special stains (acid fast and P A S requested.)

Pathological Laboratory. (8/6/57) Acid fast stain and P A S were negative for specific organisms. The majority of the specimens (90 per cent) was nonspecific whorled fibrosis, which could be anything from healed tuberculosis to a lymphoid strand, to silicosis. The small portion of the active disease was made up of a lymphoid strand containing tiny focal granulomata with epithelioid nucleated giant cells; necrosis was absent. In addition to the granulomatosis, there were focal irregularly shaped masses in the node strand. The picture was suggestive but not diagnostic of sarcoidosis. Perhaps this patient would have been a good candidate for the Kwein antigen inoculation test if antigen could have been obtained.

The Operation. Excision of the mediastinal gland and biopsy of the lung; exploratory thoracotomy.

Preoperative Diagnosis. Carcinoma of the lung.

Pathological Diagnosis. Possible sarcoidosis. This patient did well but as the patient was about to go home he developed a coronary thrombosis and expired.

SUMMARY

The diagnosis of chest diseases calls for mutual cooperation between the physician and thoracic surgeon. A preliminary medical study is essential to the diagnostic procedures employed by the thoracic surgeon. We must use all the means available and follow all the clues that may lead to the proper diagnosis. The diagnosis of pulmonary lesions is usually accomplished in two weeks. Surgical cases are often convalescing in three weeks after the survey is started. Exploratory thoractomy may be the last step to clinch the diagnosis.

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INNOCENT APICAL SYSTOLIC MURMUR

WYMAN K. WONG, M.D.*

Goldberger in his book on heart diseases, when discussing normal heart murmurs wrote: 'The differentiation of a normal systolic murmur from an abnormal murmur at the apex is a difficult problem, and there has been much discussion and little agreement as to what constitutes a normal or abnormal apical systolic murmur.' There is in fact a diversion of opinion as to how to label such normal murmurs. There have been arguments to call them 'Functional murmurs,' 'Innocent murmurs,' or 'Physiologic murmurs.' The Heart Association has recommended the term 'Innocent Murmur.'

We shall define a normal heart murmur as one which occurs in the absence of cardiac or systemic disease or abnormality, and has therefore, no clinical significance. The importance of differentiating the normal murmurs from the abnormal is obvious. The final diagnosis may vitally affect the individual concerned; his schooling, his sports, his insurability and his eligibility for military service, to mention a few. It has been well said that it is a greater error to make the diagnosis of organic heart disease in a person with a normal heart than it is to make a diagnosis of a normal heart in an individual with minimal lesion, without other cardiac findings.

The very comprehensive 1951 Impairment Study of the Society of Actuaries, in which an advisory committee of The Association of Life Insurance Medical Directors of America collaborated, revealed that apical systolic murmurs are those most frequently encountered in cardiac examinations. They found a decrease in life expectancy in association with such murmurs. In persons with an inconstant systolic apical murmur, not transmitted, the mortality was 135 per cent of the normal population. The mortality rate of those with a constant murmur was 156 per cent. It is obvious a portion of these murmurs were organic. In such studies, the clinical outcome for a given group may be predicted, but the outlook of any one individual in a group cannot. The clinician deals with the individual who depends on him to map his future. It must be pointed out that insurance examinations are not always conducted under optimal conditions, and except in certain cases the clinical impression is not supported by other evidences such as E.K.G., X-ray or fluoroscopy.

The innocent murmurs may be classified as follows:

I. Those ocurring in mid-systole

* Member of Senior Visiting, Staff, Church Home and Hospital, Baltimore, Maryland.

(a) The murmur of reclining posture
(b) The murmur of upright posture
(c) The loud variety of murmur
(d) The parasternal murmur

II. Those occurring in late systole.

Although subjects with innocent heart murmurs may be conveniently separated into certain groups, the exact mechanism of the murmur has not been determined, even with special examinations. It has been suggested that some may be produced by variations in the shape of calibre of the great vessels distal to a normal pulmonary or aortic valve.

The murmur of mid-systole accounts for about 80 per cent of all innocent murmurs. It occurs with equal frequency in both sexes. The murmur is never rough or harsh, but it could be described as roughish or blowing in character; very occasionally it is musical. The murmur is usually of brief duration. It may be stated that if a gap is detected between the first heart sound and the murmur following it, it is proof of its innocence. From a consideration of the site and intensity of the murmur and the influence of posture upon it, it has been found possible to divide this type into four groups:

(a) The murmur of reclining posture. This is the commonest form. In this subgroup the murmur is louder in the reclining than in the upright position. The murmur appears to be confined to the younger age group. The murmur is best heard just internal to the mitral area. Tachycardia is without constant effect on its intensity. It is characteristic of this group that as the subject reclined a murmur appeared in the pulmonary area. In some the pulmonary murmur can also be heard in the upright position. There is always a silent area separating the mitral and pulmonary murmurs. The murmur tends to disappear with deep inspiration.

(b) The murmur of upright position. Compared with the above this murmur is less common. However, comparing the age incident of this group with the previous one shows that this murmur is confined to the younger age group, usually under 20. This murmur is heard best in the upright position just internal to the apex. It is of a soft blowing type, and tend to disappear with inspiration.

(c) The loud variety. This type too tends to be confined to the young age group. It accounts for about 5 to 10 per cent of the mid-systolic group. It is the one most often mistaken for one indicating mitral disease. The murmur is loud but never rough. It is lessened but never abolished by inspiration. It may be transmitted to the axilla or pulmonary areas.

(d) The parasternal murmur. This murmur tend to be found more commonly in older individuals. The murmur is fairly loud so it is not abolished by inspiration. It may radiate locally for a small distance from its site of maximum intensity at the 4th left intercostal space at the sternal border. Posture does not affect it much. Although loud it is never rough, and it is never associated with a thrill.

The innocent murmurs which occur in late systole comprise about a fifth of all innocent heart murmurs. It occurs at any age, and has been described in patients from age 10 to over 60 years. This murmur usually lasts the lifetime of the individual, so it is important that the correct diagnosis is made, otherwise the individual is assigned an inferior health classification the rest of his life.

Attention is again drawn to our definition of the normal heart murmur. The above description of the different innocent murmurs holds only after a complete history and physical examination have ruled out all systemic diseases such as anemia, hypertension, infections and fever, any of which may cause a murmur. Cardio-respiratory murmurs due to the heart impinging on lung tissue may be ruled out by requesting the patient to completely hold his breath. Systolic murmurs secondary to the funnel-shaped chest or pectus excavatum or the 'small heart' of effort syndrome are to be ruled out also. In addition to the above, before the diagnosis can be made, it must be determined

that the electrocardiogram, X-rays for heart size and cardiac flouroscopy are all normal.

In spite of the above, the examiner may at times be uncertain, especially if the patient gives a history of rheumatic fever or migratory joint pains in childhood. A final diagnosis in these can be made only after repeated examination over a few years. Blumenthal studied a group of 100 cases with systolic murmurs over a period of from four to 16 years, ranging in age from 12 to 71 years. These murmurs met the criteria of an innocent murmur as discussed above. Of the 100 cases, 28 had a definite history of from one to three attacks of rheumatic fever or chorea occurring from three to 27 years before the first examination. After an average follow-up period of seven years 96 showed no significant changes in electrograms, orthodiagram, vital capacity, esophagogram or physical findings. He believed the vast majority of them were innocent murmurs and treated them as such. Evans' findings were similar. A history of rheumatic fever therefore is very suggestive, but not conclusive evidence that an apical systolic murmur is pathological. In a recent examination of over 34,000 children, Stuckey and co-workers in Australia found 467 (1.34%) children to have a cardiac murmur. They concluded that of every 10 children in whom a cardiac murmur was heard, 7 were considered to have a normal heart with an innocent systolic murmur, 2 were thought to have congenital defects, and one was considered to be suffering from rheumatic heart disease.

The old disease 'mitral regurgitation' is rightfully being discarded. Any pathological process which increases the amount of work beyond normal limits of the left ventricle will eventually result in enlargement of this chamber of the heart, and will be able to be detected.

The most important differential diagnosis of the innocent apical systolic murmur is that of mitral disease due to rheumatic fever. About 20 to 25 per cent of the people with rheumatic heart disease are unaware of a previous attack of rheumatic infection. A murmur produced by rheumatic fever may therefore not have a significant past history. There has been much discussion as to whether one is justified in taking serious notice of a mitral systolic murmur due to rheumatic fever which is un-associated with mitral stenosis or other evidence of cardiac defect after some years of follow-up. This point will not be discussed here. However it is important to make a diagnosis in such cases, if possible, not with the object of imposing physical restrictions, which may do the patient more harm than good; but with the idea of recognition of the possibility of future bacterial endocarditis.

The phonocardiogram, on which much work

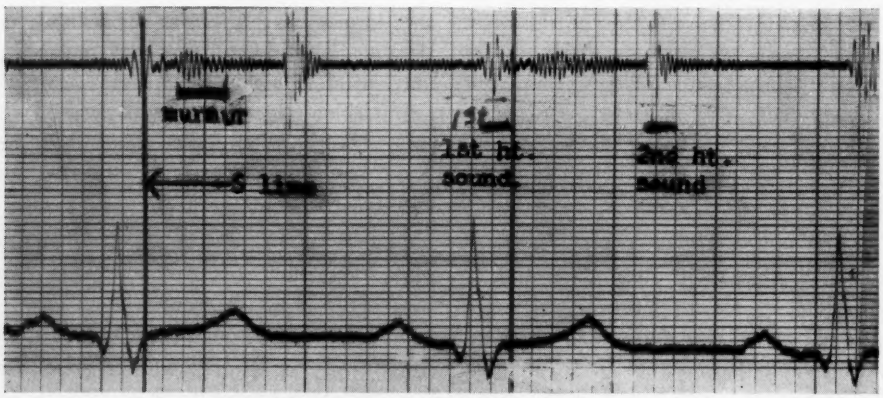

FIG. 1. Phonocardiogram showing mid-systolic murmur

has been done in recent years, may be of use in the differentiation of the innocent apical systolic murmur from that due to rheumatic valvulitis.

It is a useful instrument for the accurate timing of murmurs. More recently several workers have studied the graphic configuration of different murmurs. A method of using it to time murmurs is as follows: on a tracing such as the one shown (Fig. 1), a line may be drawn through a point that marks the end of the S wave of the E.K.G. and prolonged to intersect the phonocardiogram at right angles. This line may be named the S-line. It coincides with the early phase of ventricular systole. If a murmur starts at the S-line it coincides with the early phase of ventricular systole; if it precedes the line it is the effect of auricular systole; and if it starts a little later than the S-line, the murmur occupies mid-systole. The duration of the murmur will also be recorded. It is a graphic method of recording a patient's murmur for future reference. The innocent systolic murmurs begin later than the S-line, whilst those due to mitral disease commence before or at the S-line depending whether an auricular component is present.

SUMMARY

The importance of an innocent murmur, its description and diagnosis have been discussed.

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IN APPRECIATION

The Board of Trustees of the Church Home and Hospital wishes to express its sincere gratitude to the medical profession in Baltimore and Maryland for its long and dedicated service to the Institution and to its patients and staff. As much as anything else, our celebration of the Centennial Year is an acknowledgement of the ever-increasing debt we owe to the doctors who play such a vital role in our total community service at Church Home and Hospital.

The Rev. David C. Watson,
President, Board of Trustees

This concludes the Church Home and Hospital Issue of the MARYLAND STATE MEDICAL JOURNAL

Component Medical Societies

ALLEGANY-GARRETT COUNTY MEDICAL SOCIETY

LESLIE E. DAUGHERTY, M.D.
Journal Representative

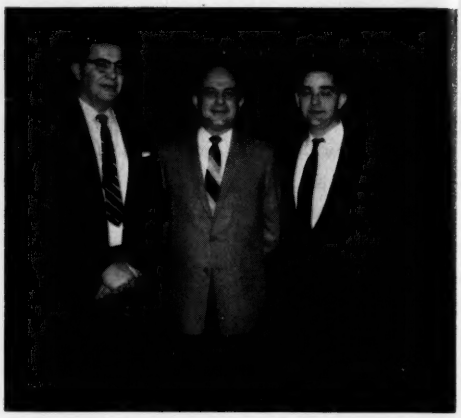
Officers for the year 1958, elected at the January meeting of the Allegany-Garrett County Medical Society are: Dr. Hilda Jane Walters, of Frostburg, President, and Doctors Leland B. Ransom, Vice-President; Carlton Brinsfield, Secretary; Thomas F. Lewis, Treasurer; Benedict Skitarelic and Abraham Mirkin, Delegates; D. B. Grove and A. E. Mance, Alternate Delegates; and Wylie M. Faw, Jr. and C. C. Zimmerman, Censors. Dr. Leslie E. Daugherty was renamed Journal Representative. All of these physicians are residents of Cumberland with the exception of Dr. Mance whose home is in Oakland.

The following officers were elected to serve on the Staff of the Sacred Heart Hospital, Cumberland, for the year 1958.

Doctors Leo H. Ley, Jr., President; C. C. Zimmerman, Vice-President; and David H. Miller, Secretary.

The hospital now has twenty-eight physicians serving on its Active Staff, ten on the Associate Staff and twenty on the Courtesy Staff. There are six members on the Consulting Staff and three doctors on the Honorary Staff.

DOCTORS CARLTON BRINSFIELD, HILDA JANE WALTERS, LELAND B. RANSOM AND THOMAS F. LEWIS



DOCTORS C. C. ZIMMERMAN, LEO H. LEY, JR. AND DAVID H. MILLER

Dr. James O. Bullock was born January 22, 1842 and practiced thirty-three years in Lonaconing. In 1917, the Village of Lonaconing celebrated his 75th birthday. A tribute to him among other things stated—"After thirty-three years, this man of the medical profession must have seen a great deal of the dark side of life. Helping others must be a great satisfaction to this good doctor. To us it is written in his smile, in every line of his face, in the highlights of his eyes."

What more could be said of any man, for he must have ridden wearily through vale and over summit along the George's Creek by horseback this third of a century—"qui cum talis vivere sustines."

Dr. John A. Kolmer, Director of The Institute of Preventive Medicine and Public Health of Temple University, Philadelphia, Pennsylvania in a personal communication to me, spoke of Dr. Bullock as his beloved family physician, who not only made his daily rounds on horseback with saddle bags but dispensed his medicines as well. Knowing my ambition to become a physician, I shall never forget the evening when, at about 14 years of age, he took me to the home of an injured miner to witness the amputation of a foot. My job was holding a kerosene lamp.

Following graduation from the School of Medicine of the University of Pennsylvania, in 1908, when I

DR. JAMES O. BULLOCK
1842–1930

He never wrote a book, but he said just before he died—"Son—I never refused a call."

had just reached 22 years of age, I returned home for a few days arriving at midnight. At 8 a.m. the following morning, Dr. Bullock called and spent several hours with me discussing the latest methods of diagnosis and treatment of various diseases. Needless to state, I was flabbergasted by the fact that this faithful family doctor condescended to discuss such matters with a mere youngster like myself, and also greatly impressed by his knowledge of recent discoveries and developments. Ever since then I have had a profound and increasing respect and admiration for many general practitioners. I believe that we are not so much in need of more physicians at the present time as we are of better educated general practitioners.

ANNE ARUNDEL COUNTY MEDICAL SOCIETY

PHILIP BRISCOE, M.D.

Journal Representative

The Anne Arundel County Medical Society held its first dinner meeting of 1958 on January 14 at Carvel Hall in Annapolis.

Mr. Paul Fales, Chief of the Division of Social Security, Employee's Retirement System of Maryland spoke to the Society regarding Social Security as it could apply to physicians.

New officers elected for the year 1958 included: Dr. J. Howard Beard, President; Dr. Irving L. Ochs, Vice-President; Dr. Randall McLaughlin, Secretary-Treasurer; Dr. Robert A. Riley, Representative to the Planning Committee with Dr. H. F. Manuzak as Alternate; Dr. John Lyons, Representative to the State convention, with Dr. Manning Alden, Alternate. Dr. Joseph C. Sheehan is to serve for three years on the Board of Censors.

Two new members were nominated for election to the Society: Dr. Gustave Delgado, an anesthesiologist who will join Drs. John Lyons and Beatrice Di Marco in the Department of Anesthesia, Anne Arundel General Hospital, and Dr. Michael Monias who will practice with Drs. Christhilf, Sheehan and Riley in the county. There were three transfers from the Baltimore City Medical Society to the Anne Arundel County Medical Society. Dr. Richard N. Peeler who is now practicing internal medicine with Dr. John Hedemen; Dr. Leonard H. Flax who will practice medicine in Anne Arundel County and Dr. John F. Hawkins, Jr., who will practice surgery in this county.

CARROLL COUNTY MEDICAL SOCIETY

JULIUS CHEPKO, M.D.

Journal Representative

The Carroll County Medical Society met at Hoffman's Inn, Westminster, on January 15, 1958.

The following officers were elected: Doctors W. Glenn Speicher, President; C. L. Billingslea, Vice-President; W. Culwell, Secretary-Treasurer; R. S. McVaugh, Delegate; M. E. Robertson, Alternate Delegate; Julius Chepko, Journal Representative, and W. Carl Jennette, G. Allan Moulton and Daniel Welliver, Censors.

Dr. Billingslea, Hospital Medical Committee spokesman announced that Dr. Richard Y. Dalrymple of Hanover, Pennsylvania, has been chosen to be Chief of Surgery of the proposed Carroll County Memorial Hospital. Dr. Dalrymple will have two years of advanced surgical training before assuming his new duties.

The donations and pledges received for the hospi-

tal show that the people of Carroll County indeed have large hearts—so large that they have more than doubled the sum asked of them! Nearly $700,000 has been subscribed, and among them was an anonymous gift of $100,000!

The professional fund raisers' fee will be paid from the interest on the money collected during the hospital drive.

Dr. William H. Foard, of Manchester, was to represent the Carroll County Medical Society on February 13th at a meeting of the Committee on Rural Health held in Baltimore.

Dr. R. S. McVaugh of Taneytown discussed the functioning of the Easter Seal Treatment Center for Orthopedic Problems located in Frederick.

A motion was passed to permit a ladies medical auxiliary for Carroll County to be formed. A motion was also passed to formally oppose H. R. Bill 9467, the "Forand Bill." This Bill would make free medical and hospital care available to all those on Social Security.

Dr. Yasuo Takahashi was admitted to the Carroll County Medical Society.

It was decided to invite the leaders of the Hospital Committee to the March meeting to thank and honor them for their efforts and services and to hear prominent out-of-town speakers discuss the role of a small community hospital.

Social Security

Advocates of Social Security are encroaching more and more upon the medical profession and hope soon to bring doctors, themselves, under its paternal wings. Their purpose, of course, is mainly to obtain a financial windfall whereby they can throw their vote-getting sops to the gold-brickers who have become the scourge of our modern civilization. Why should doctors, who contribute so much to our society in the form of confiscatory taxes and free service, become hosts to these parasites? The time is fast running out and, if the medical profession does not stand solidly against Social Security, we *will* fall prey to creeping socialism. Have the politicians considered that if they need *our* money to pay the present Social Security claims, where are they going to obtain the funds to pay our claims when *they* are due? Is this not a case where "figures don't lie but liars figure"? Or is there really an honest-to-goodness Santa Claus"? By means of insurance and prudent investments a person can provide his own old age security.

"All that is necessary for evil men to prosper is for good men to remain idle and do nothing."

The writer has gleaned these impressions from his contacts with the members of the Carroll County Medical Society.

CECIL COUNTY MEDICAL ASSOCIATION

M. H. SPRECHER, M.D.

Journal Representative

Dr. W. H. Sadowsky, Perryville, presided at the second regular meeting for 1958 of the Cecil County Medical Society held at the Madison House, North East, Maryland. Dr. Sadowsky is the newly appointed president of the Society. He is to serve for one year. Dr. Klaus Huebner was retained as Secretary-Treasurer.

This meeting was held at 4:30 p.m. The hour marked a departure in the time for the Society's regular meetings. The location also was changed as it was decided that more doctors could conveniently attend in the afternoons, and that the new meeting place was more central than Elkton.

One meeting last year was addressed by Dr. J. Morris Reese of Baltimore. His subject was "The Conduct of Breech Deliveries." Dr. A. R. Shands, Director, Alfred I. du Pont Institute, Wilmington, Delaware, discussed "Common Orthopedic Problems in Children" at another meeting.

A Committee of the Society, under the joint chairmanship of Dr. H. V. Davis and Dr. George Kreis, Jr. has worked actively with the Board of Directors in planning an addition to the hospital to cost more than one million dollars. This addition will increase the hospital capacity from seventy-seven beds to one hundred and eight beds, and the bassinets from twenty-five to thirty-one. Two new, completely equipped operating rooms are planned, as well as a recovery room; a new pediatrics department; new maternity section; central supply room and rooms for BMR and EKG. The laboratory, X-ray Department, and dining room will be enlarged. There are provisions for a new drug room and quarters for the medical library, and a Boardroom. The present Boardroom is to be converted into a larger "hospitality" shop to be conducted by the hospital Woman's Auxiliaries.

Personals

Dr. J. Herbert Bates has returned to his office after recuperating from an illness which began in April 1957. His friends were delighted that he could personally receive his Certificate of Achievement after fifty years of practice in medicine. Many of them called on him last June to present him with a watch which had been suitably engraved for the occasion.

Dr. R. C. Dodson of Rising Sun, Deputy Medical Examiner, has been a busy speaker at civic clubs on the prevention of accidents in the home and on the highway. He participated with Governor McKeldin in the ceremonies opening the Rising Sun by-pass. He has terminated seven years as Councilman and Mayor of Rising Sun, and recently celebrated his twenty-fifth wedding anniversary. On that occasion Dr. and Mrs. Dodson were given a dinner which was attended by friends from the entire county.

FREDERICK COUNTY MEDICAL SOCIETY

LOUIS R. SCHOOLMAN, M.D.

Journal Representative

The regular meeting of the Society was held at the Francis Scott Key Hotel, Frederick, on January 21st. The speaker was Mr. Robert Swain, hospital physicist at the Clinical Center, National Institutes of Health. His topic was "Uses and Abuses of Ionizing Radiation." His talk was timely in that he pointed out how the patient, x-ray technician and physician could be protected from excess radiation during the process of diagnostic roentgenography. He made a valuable contribution to our knowledge.

The discussion in the business meeting which followed the speech was long, but quite spirited. A resolution approving the recommendations made by the Maryland Radiological Society to remove diagnostic x-ray benefits from "Blue Cross" and provide full coverage under "Blue Shield" was passed. The vote was far from unanimous. Some approved it in principle only, while others felt that it should be discussed more fully at a later date.

Another resolution, supporting the Council of the "Medical Chi" in its opposition to HR Bill 9467, was passed. The Society members knew very little about it but wished to support the Council which they felt would have good reasons for its stand.

A report of the Public Health Committee recommending that the Frederick County Health Department discontinue supplying free biologicals to the hospital and to physicians, except for the care of the indigent, was thoroughly discussed. The consensus of opinion was that the Society could hardly decry the invagination of the Health Department's services into private practice while using its free material on private patients. The recommendation was adopted.

HARFORD COUNTY MEDICAL SOCIETY

FREDERICK J. HATEM, M.D.

Journal Representative

The December meeting of the Harford County Medical Society was held at the Bayou Restaurant, Route 40, Havre de Grace.

The following officers were elected: Doctors Richard B. Norment, President; J. Ralph Horky, Vice-President and Member, Planning Committee; Philip Heuman, Alternate Member, Planning Committee; William K. Brendle, Secretary-Treasurer; Dudley Phillips, Delegate; Charles Stewart, Alternate Delegate.

Hospital Notes

The following slate of officers was elected for the year 1958: Doctors Edward Simon, President; Barry Plunkett, Vice-President, and Wilford A. H. Councill, Secretary-Treasurer.

The additions to the hospital are progressing nicely and should be completed by this June. They will give us a completely new Pediatrics Department, increased maternity and emergency room facilities and more medical-surgical beds. The increase will be from approximately one hundred beds to between 150 and 160 beds.

Personal Notes

Dr. Randall Ross, recently discharged from the U. S. Navy has entered general practice at Havre de Grace in association with Dr. Frank Wolbert.

Dr. Andre Weiss has transferred membership from Montgomery County where he was associated with the Wheaton Clinic. He is now in general practice in Aberdeen.

Captain Whiteford, USAF, has been having evening office hours in Dr. Charles Neff's former office. Dr. Neff has moved to California.

MONTGOMERY COUNTY MEDICAL SOCIETY

HENRY W. JAEGER, M.D.
Journal Representative

Montgomery County Medical Society commenced the year 1958 by having its regular monthly Dinner-business meeting at Norbeck Country Club, Tuesday evening 21 January, 1958. Sixty-five per cent of its voting members attended. The Society had a very interesting panel discussion of "What the Physician Should Know About Social Security." Members of the panel were: Thomas H. Alpin, M.D., Director, Washington D. C. Office of American Medical Association; Mr. George Duval, President, Suburban Maryland Association of Life Underwriters and Mr. William Spates, District Manager of Silver Spring Social Security Office.

WASHINGTON COUNTY MEDICAL SOCIETY

ARCHIE ROBERT COHEN, M.D.
Journal Representative

The Medical Society of Washington County opened its 69th year of continuous service to the medical profession of the county on January 9th, 1958.

After a fine social hour and an excellent dinner, an outstanding discussion of "Tumors of the Neck" was presented by Dr. Robert G. Chambers of Baltimore.

Following the scientific portion of the meeting, the business of the Society was conducted. The following were installed for the year 1958: Dr. J. Walter Layman, President; Dr. John A. Moran, Vice-President; Dr. Ernest F. Poole, Secretary-Treasurer; Board of Censors, Drs. J. H. Beachley, R. A. Bell and J. J. Dobbie; Delegates: Drs. E. W. Ditto, III and Richard A. Young; Alternate Delegates: Drs. Archie R. Cohen and F. E. Brumback; Journal Representative, Dr. Archie R. Cohen.

An executive committee was authorized, and a necessary amendment to our constitution was accepted, to conduct the business of the Society in the intervals between meetings. This committee consists of the officers and the delegates.

WORLD HEALTH ORGANIZATION

In 1946, an International Health Conference, called in New York by the United Nations, approved the constitution of a new specialized agency, the World Health Organization, and decided that it would come into official existence when twenty-six member countries of the UN had ratified their signatures to the constitution.

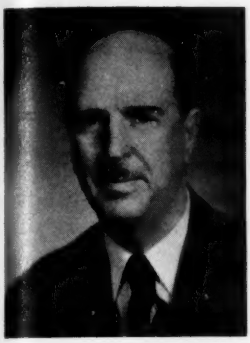
The twenty-sixth member ratified in April 1948 and in September of that year the organization came into official existence.

In 1958 there will be a tenth anniversary celebration to be held on May 26th and 27th, in Minneapolis, and preceding the eleventh regular session.

Necrology*

James Graham Marston, M. D.

1891–1957



DR. MARSTON

James Graham Marston was born in Baltimore on November 28, 1891. He died suddenly on December 13, 1957 of a heart attack.

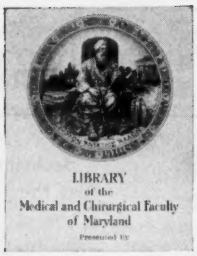
Dr. Marston received his early education at the Boys' Latin School. He then attended Johns Hopkins University where he received his Bachelor of Arts degree in 1913. He spent two years at the Johns Hopkins Medical School and the next two at the University of Maryland Medical School graduating in 1917 with the degree of "M.D."

After interning for a few months at University Hospital, he entered the United States Public Health Service. In 1921 he resigned from this Service to establish a private practice which he maintained until the day of his death.

Dr. Marston was a patron of the arts. He was well versed in music and enjoyed it to the fullest, rarely missing an opera or a concert. He was a genealogist of some note and belonged to a number of patriotic societies, among them the Maryland Society of Colonial Wars, the Society of the War of 1812, and the Sons of the American Revolution. He was also, for many years, a vestryman of Old St. Paul's Church.

Ernest G. Marr, M.D.
516 Cathedral Street
Baltimore 1, Maryland

* A. S. Chalfant, M.D., Memoir Appointee.



Library

Louise D. C. King *Librarian*

"Books shall be thy companions; bookcases and shelves, thy pleasure-nooks and gardens." *Ibn Tibbon*

"Upon the education of the people of this country the fate of this country depends"
Benjamin Disraeli
House of Commons, 15 June, 1874

THE LIBRARY

JAMES ATKINSON

1759–1839

We should like to call your attention to a unique and highly entertaining book by James Atkinson, entitled "Medical Bibliography A and B," published in 1834 by John Churchill of London. The late Dr. John Ruhräh, one of our own members, has written an interesting and detailed account of this book, to which we refer you for his comments and extractions from parts which appealed to him for humor, telling thrusts or good common sense.

Dr. Atkinson's sketches and comments on books by the authors include only the first two letters of the alphabet, and if ever dry as dust information was made amusing, he has succeeded in doing so. His fondness for punning, his jabs at some of his subjects and his personal opinions wittily expressed in his summaries, are all interesting and make you wish to know more of those of whom he writes, to pit your judgment against his and to compare information given with medical knowledge of today. Human nature has not changed, for all our strides in increased wisdom and civilization, and the foibles of the 18th century are still the faults of the 20th century. So that you may know in some measure what to expect, we have made a few selections from his comments.

In speaking of George Armstrong, an early pediatrician, he says "The cradle and the nursery have been much obliged to him; for he who saves the King's subjects, earns a great deal of money; and he who preserves the life of a child, rescues it at least from a very stupid sojourn in limbo." And of Francisci Alexandri Apollo; "Now what immense practice must this Dr. Apollo have had among the ladies! Called in upon all occasions, real and imaginary. . . . I say how much did he save, not how many; and whether he had a numerous offspring, respectfully acknowledged. . . ." He comments on Petrus Agillata circ. 1490: "Now Peter again, like many of his brethren in the Universities of those days had many strings to his bow. No fewer than three, Logic, Astrology and Medicine; strings to play on not easy!—Indeed, Logic usually plays on itself; Astrology upon the star-gazers and Medicine upon costive characters. Every fool has his fiddle, I have mine, gentle reader, have not you?" Under the name of Asclepias he says only: "His books are lost—One man loses a character by his books being lost; another, because his books are not lost. Timeo, ne forte ego." The only American whose works we found listed was Benjamin Smith Barton of Philadelphia, of whom he condescendingly says: "I am glad to enumerate a publication from that quarter of the world. Many of the medical men of America evinced great talents in those subjects on

which they have treated. . ." Would Dr. Atkinson were alive today! In his lengthy remarks on Dominique Anel circ. 1700, we were interested to note: "Consult Dessault, Pott, Petit or the line of battle described by CHATTARD OF BALTIMORE. . ." Of Anel himself he says: "Had wrought a way not only into the nose, but into the hearts of some fashionable patients: and thus by a via benedicta insured his fortune."

We have forborne to repeat any of his numerous examples of punning, to which he was most addicted, knowing that the mere mention of the word is an anathema to many people; but we think it just to excerpt for you the following, taken from his comments on J. Steph. Adam: "Is there not a defence for punning? Much recondite learning is to be squeezed out of the enigmatous or punning envelope of men's language and expressions. It is a double entendreship of science! The number of select characters who have espoused the trick of punning or of jeux de mots, when artistement introduits, may be adduced in defence, or even semi-approval of this venial sin. It may be considered as a retrograde of wit." "You are always letting puns" an old clergyman said to Sterne, "it deserves punishment."—"that," replied Sterne, "is—as the pun is ment."

We could go on ad infinitum, but think it far better that you read one or more of the appended selected articles about him; or, better still, that you devote a little time to looking over the original book in your library and thus discover your own chuckles.

OSLER, SIR WILLIAM—Some aspects of medical bibliography. In Bulletin of the Ass'n of Medical Librarians. **1:** 19, 1902.

ROLLESTON, SIR HUMPHREY—Two James Atkinsons. In Annals of Medical History. **3:** 175, 1941 s.3.

RUHRÄH, JOHN—James Atkinson. In Annals of Medical History. **6:** 200, 1924.

SHARP, GORDON—J. A., Surgeon, scholar, wit of York. In Medical Magazine (London). **6:** 930, 1897.

TEDDER, H. R.—James Atkinson. In Dictionary of National Biography. v. 2, 1883.

CHURCH HOME AND HOSPITAL

At Church Home and Hospital, the emphasis has always been on patient care—at the patient's bedside. Both the medical staff and the nursing staff are faithful to this "clinical approach" to the patient. Graduates of the Church Home and Hospital School of Nursing are noted for their practical bedside nursing experience and training.

Maryland
SOCIETY OF PATHOLOGISTS
INC.

PAUL F. GUERIN, M.D., *President*

ROBERT D. SOLOMON, M.D., *Secretary*
Sinai Hospital, Baltimore 5, Md.

THE RISKS OF BLOOD TRANSFUSION

Available statistics indicate that blood use is now nearing ten pints per hospital bed per year in large general hospitals and that the total amount of whole blood used in the United States is between three and four million pints per year. Mortality directly attributable to blood transfusion has been variously estimated from one death per thousand to one death per five thousand transfusions. Various non-fatal reactions and complications associated with transfusions, however, may be as high as five per cent. The risks associated with transfusions are of increasing concern to all physicians responsible for patient care or for operation of blood banks.

The various types of reactions or complications associated with transfusions may appear promptly or be delayed and not become manifest for months or even years. The promptly appearing reactions or complications include severe hemolysis, various reactions to contaminated blood, circulatory overload, embolization due to air or clots, allergic reactions and febrile, non-hemolytic reactions. Delayed reactions or complications include mild hemolysis, homologous serum hepatitis, transmission of other diseases and immunization of the recipient.

The proper appreciation of the risks of transfusion will insure that the blood bank has proper space and facilities and is staffed with a sufficient number of especially qualified personnel. The number of reactions or complications following blood transfusion will be considerably reduced by the well organized and operated bank. However, one of the most common causes of fatal hemolytic reactions is the transfusion of the wrong blood (that intended for another patient). The responsibility for determining that properly identified blood is given to a particular patient rests not only with the personnel of the blood bank but with all others helping care for the patient, especially those who collect the sample for cross matching and those who administer the blood.

It is often true that blood transfusion is a life saving procedure. It is equally true that blood is sometimes given with questionable medical justification. In view of the risks involved, the physician who uses a transfusion as an alternative to another means of therapy must define his indications in terms of their relative risks and effectiveness. The responsibility for the risk is of course assumed by the physician but the risk itself is assumed by the patient.

Health Departments

BALTIMORE CITY HEALTH DEPARTMENT

Study on Prenatal Infections

In a recent *Saturday Letter to the Mayor*, the Commissioner of Health wrote:

"It is a pleasure to inform you that the City Health Department has been awarded a research contract to participate in a U. S. Public Health Service cooperative study on the relation of infection during pregnancy and congenital malformation.

"The project will be directed by Dr. Matthew Tayback, Assistant Commissioner of Health for Research and Planning who will be assisted by Dr. Robert E. Farber, Director of the Bureau of Communicable Diseases, and Mr. Todd M. Frazier, Director of the Bureau of Biostatistics. The Baltimore City Hospitals will also cooperate in the study.

"Selection of the Baltimore City Health Department for participation is essentially due to the contribution which the City Health Department has made to date on the epidemiology of prematurity and the special program for investigation into congenital malformation which the City Health Department's Research and Planning Section has been pursuing for the past several years.

Huntington Williams, M.D.

Commissioner of Health

HEALTH INSURANCE INSTITUTE STATISTICS

Benefit payments by insurance companies to Americans protected by health insurance policies amounted to a record $2.5 billion in 1957, the Health Insurance Institute reported today. This figure, the Institute said, represents a 16.1 per cent increase in benefit payments over the $2.1 billion paid in 1956.

Latest figures supplied by the U. S. Dept. of Labor in its 1957 Consumer Price Index showed that medical care costs during the year rose by 4 per cent.

STATE OF MARYLAND DEPARTMENT OF HEALTH

MONTHLY COMMUNICABLE DISEASE REPORT

Case Reports Received during 4-week Period, March 1–27, 1958

	CHICKENPOX	DIPTHERIA	GERMAN MEASLES	HEPATITIS, INFECT. AND SERUM	MEASLES	MENINGOCOCCAL INFECTIONS	MUMPS	POLIOMYELITIS, PARALYTIC	POLIOMYELITIS, NON-PARALYTIC	ROCKY MT. SPOTTED FEVER	STREP. SORE THROAT INCL. SCARLET FEVER	TYPHOID FEVER	WHOOPING COUGH	TUBERCULOSIS, RESPIRATORY	SYPHILIS, PRIMARY AND SECONDARY	GONORRHEA	OTHER DISEASES	DEATHS: Influenza and pneumonia
Total, 4 weeks																		
Local areas																		
Baltimore County	52	—	57	—	125	—	17	—	—	—	13	1	—	5	—	9	—	6
Anne Arundel	1	—	2	—	27	—	1	—	—	—	1	—	—	6	—	4	m-2	6
Howard	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1
Harford	1	—	—	—	6	—	1	—	—	—	—	—	—	2	—	—	—	1
Carroll	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	m-1	8
Frederick	6	—	—	2	—	—	—	—	—	—	2	—	—	5	—	—	—	4
Washington	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—	—	1
Allegany	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	7
Garrett	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	1	—	—
Montgomery	39	—	42	1	83	—	1	—	—	—	29	—	—	4	—	1	m-1	2
Prince George's	5	—	25	1	42	1	1	—	—	—	15	—	—	8	—	4	e-1	5
Calvert	—	—	—	—	—	—	—	—	—	—	2	—	—	—	3	—	—	—
Charles	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	1
Saint Mary's	1	—	7	—	6	—	—	—	—	—	—	—	1	—	—	—	—	3
Cecil	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Kent	1	—	—	—	7	—	—	—	—	—	—	—	—	1	—	—	m-1	—
Queen Anne's	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Caroline	—	—	—	—	25	—	—	—	—	—	—	—	—	—	—	4	—	1
Talbot	—	—	—	—	13	—	—	—	—	—	—	—	—	1	—	1	m-1	1
Dorchester	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	2	—	5
Wicomico	7	1	2	—	10	—	2	—	—	—	2	—	—	2	1	8	—	8
Worcester	—	—	—	—	—	—	4	—	—	—	—	—	—	1	—	1	—	—
Somerset	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	m-1	2
Total, Counties	113	1	135	4	344	1	27	0	0	0	64	1	1	51	7*	36*		63
Baltimore City	109	0	158	3	571	0	20	0	0	0	33	0	1	66	14	428	p-1	60
State																		
Mar. 1–27, 1958	222	1	293	7	915	1	47	0	0	0	97	1	2	117	21	464		123
Same period 1957	421	0	33	15	86	2	387	0	0	0	128	0	17	145	23	481		77
5-year median	265	1	83	26	800	6	322	0		0	278	1	22	168	18	440		84
Cumulative totals																		
State																		
Year 1958 to date	663	2	431	29	3883	9	133	0	0	0	252	1	21	406	62	1528		383
Same period 1957	1025	1	64	38	202	8	855	0	0	0	333	1	59	459	63	1655		216
5-year median	1569	3	172	63	2063	19	822	2		0	722	3	88	484	61	1688		268

e = encephalitis. m = meningitis, other than meningococcal.

p = psittacosi. * Totals include cases reported by State Institutions and Hospitals.

Blue Cross - Blue Shield

PRE-EXISTING CONDITIONS

D. N. KELLY*

The Blue Cross-Blue Shield Plans in Maryland, like all other "Blue" Plans in the United States, have a few special limitations and restrictions to the benefits available to a new subscriber during the first few months of membership. Subscribers who are enrolled through organized groups have waiting periods of nine months, while those under non-group membership must wait 12 months, before certain benefits are available. The most frequently applicable—and perhaps the least understood—of these restrictions is the one pertaining to "pre-existing conditions." Physicians frequently inquire about denial of benefits based on this provision of the subscription agreement.

For example, a typical doctor's letter states: "Mrs. Smith did not have her trouble clearly diagnosed until her recent hospital admission and yet Blue Cross-Blue Shield classified her condition as pre-existing and denied benefits." In this hypothetical case, although Mrs. Smith had enrolled in Blue Cross-Blue Shield before the hospital admission in question, according to her medical history, it was well prior to that date that she became aware of objective as well as subjective signs and symptoms referrable to the pathology that subsequently brought about her admission. This fact established her condition as "pre-existing" the effective date of her membership. Blue Cross-Blue Shield benefits for such conditions are not provided during the waiting period. After the completion of this waiting period, however, full contract benefits would be available to Mrs. Smith for this or any other condition no matter when its onset might have occurred.

Unfortunately there is no absolutely clear-cut way to administer the pre-existing condition provision of Blue Cross-Blue Shield contracts. Obviously it would not be equitable—nor understandable to the subscriber-patient—to base decisions about pre-existing conditions on medical knowledge or opinions concerning the time it takes various pathological conditions to develop. Were the Plans to take cognizance of medical opinions about etiology a member of, say 10 months standing, who was hospitalized for a brain tumor would have his claim denied even though the tumor had been asymptomatic until four or five months prior to his admission. That would not be right. On the other hand a member of five months standing whose admission was due to severe headaches of 10 months duration equitably should have his claim denied irrespective of what was found to be the cause of these headaches.

Nor would it be proper to use as criteria for pre-existing conditions the actual dates on which diagnoses might be made. If a patient delayed consulting a doctor, or if the doctor made an inadvertent error in the diagnosis, the Plans would incur financial liability for a case which, in the light of subscriber knowledge, obviously pertained to a pre-existing condition.

Accordingly, when investigating a case occurring within a prescribed waiting period, the Plans obtain information from the personal medical history of the patient involved and use as the criterion of pre-existence the date on which the patient himself was first cognizant of signs or symptoms referrable to the pathology.

New subscribers are advised about the 9 or 12 months waiting period before pre-existing conditions will be covered; a pertinent denial should not come as a surprise or disappointment to them. Notice of this temporary exclusion of benefits for "any illness or injury which existed on or before the original effective date of the subscriber's membership" appears prominently in the certificate issued to each subscriber as well as in the Plans' promotional literature. Unfortunately, however, the Plans apparently have not yet found a way by which they can insure that new subscribers fully realize that Blue Cross and Blue Shield must necessarily impose a few limitations and restrictions upon the benefits of membership.

Waiting periods, of course, must be imposed for financial reasons, not just to protect the Plans from "defrauders." It is only proper that the prepaid funds of members of long standing should be spared the expense of providing services for a new member for a condition which was subjectively symptomatic prior to the time the new member made any contributions to those funds.

200 W. Baltimore St.
Baltimore 2, Maryland

* Assistant Director, Maryland Medical Service, Inc.

Woman's Auxiliary Medical and Chirurgical Faculty

MRS. HOMER ULRIC TODD, SR., *Auxiliary Editor*

THE WOMAN'S AUXILIARY TO THE BALTIMORE COUNTY MEDICAL SOCIETY

MRS. D. DELMAS CAPLES, *President*

The Woman's Auxiliary to the Baltimore County Medical Association has just completed its seventh year.

This was a year of change for us. We previously met four times a year but the attendance was poor under this arrangement. So we were granted permission by our Medical Association to meet with them for luncheon each month and then separate for meetings, or also attend their meeting if they wished us to hear their speaker.

In January 1957, we attended a joint meeting with the doctors at Stella Maris Hospice.

Our guest speaker in February was Mrs. Homer U. Todd, Sr., President of the Auxiliary to the Medical and Chirurgical Faculty. She spoke on "The Responsibilities of an Auxiliary Member," and her talk was most helpful to our group.

Our annual "Doctors Day" dinner dance was held at the Southern Hotel, Baltimore, in March. Each doctor was presented with a red carnation. There were many lovely door prizes and a feature of the evening was an exhibition dance by a couple from a dance studio in our own county. The Medical Association presented a silver tray to Dr. George Kieffer of Halethorpe. Our guests were Dr. Reid Edwards, President of the Medical and Chirurgical Faculty, and his charming wife, and Dr. and Mrs. Homer U. Todd. The proceeds from this affair were used for our Nursing Scholarship fund.

In April we had a subscription luncheon for A.M.E.F. at the home of Mrs. Charles H. Williams. To this was added the money made at the rummage sale, and our total contribution for the year was one hundred dollars.

The next month Col. Schefferling spoke to us on the "Medical Aspects of the Fall-out from the Atomic Bomb." A Civil Defense film on the same subject was also shown.

In June we had a joint meeting with our doctors and awarded our Seventh Annual Nursing Scholarship to an outstanding Baltimore County student. We have "Future Nurse Clubs" in all Baltimore County public high schools and in two junior high schools.

We had the pleasure of attending a crab feast with our doctors at a County seafood restaurant in August.

In September, we had a joint meeting with the Medical Association. At this meeting, Dr. J. H. Conn spoke on "Hypnosis in General Practice."

In November, we enjoyed having the Carroll County Doctors Wives as luncheon guests at the Green Spring Inn. The Baltimore City Auxiliary gave a skit "Know Your Auxiliary." The Medical and Chirurgical Auxiliary entertained the Anne Arundel County Doctors' Wives, also. We hope to be able to help these counties to organize auxiliaries.

We held our December meeting at Seton Institute with our doctors. Dr. Leo Bartemeier spoke to us on "Who is Mentally Sick." We also sold subscriptions to "Today's Health," and the "Bulletin."

Your President, representing the Auxiliary, served as a member of the Executive Committee and Board of Directors of the Baltimore County Public Health Association.

Every doctor's wife becomes a member of the Auxiliary when her husband joins the Baltimore County Medical Association. For this we are very appreciative.

It has been an honor and a privilege to serve as Auxiliary President and I am grateful for the support I received.

PUBLIC RELATIONS 1957–1958

MRS. PAUL E. RAUSCHENBACH

National Chairman, Public Relations Committee

Program Outline for County Auxiliaries:

"Health is a Joint Endeavor" is the motto for the Auxiliary this year and it is fitting that the activ-

ities of the Public Relations Committee be directed toward this objective. Active participation in the entire Auxiliary program should be emphasized. It is important for the Public Relations Chairman to work closely with the Program Chairman.

Specific projects adopted by the Woman's Auxiliary to the A.M.A. for Public Relations this year are: 1. American Medical Education Foundation; 2. To-day's Health; 3. Safety: a) Home, b) School; c) Highway; 4. Mental Health; 5. Community Health: a) Health Days, b) Rural Health, c) Survey of Health Facilities; 6, Civil Defense; 7. Recruitment; 8. Science Fairs.

The Committee should at all times cooperate with the various health and educational organizations approved by the National, State and County Medical Advisory Committees.

NEWS LETTER

MRS. ALBERT E. GOLDSTEIN, *Editor*

The Woman's Auxiliary to the Medical and Chirurgical Faculty published the first "News Letter" in 1956; two others followed in 1957. We hope to publish *three* this year.

Our appellation "Hygeia Filiae" (Hand Maidens to Health) was suggested by Dr. Harvey S. Stone for our State Seal, and the Auxiliary Board unanimously approved the name. Indeed, what name could be more fitting!

We can also boast that we are the forty-fourth State Auxiliary to produce a publication and that "News Letters" are mailed to National Headquarters in Chicago, and to every State.

Read the "News Letter."

Contribute ideas and suggestions.

Watch it grow.

LEGISLATION

MRS. JAMES G. SASSCER*

Recent polls of high-school students indicate a discouraging trend towards collectivistic thinking. An Essay Contest, sponsored by the Association of American Physicians and Surgeons, is doing much to counteract the fallacious propaganda of collectivism with which our students are being indoctrinated in too many schools.

We hope to have our Maryland high-school students participate this year in this contest, which the A.M.A. commends. The choice of topics is "The Advantages of Private Medical Care" and "The Advantages of the American Free Enterprise System."

Many of our high-school students are not being taught the principles of our constitutional government. The Essay Contest is a wonderful means of capturing the minds, not only of the students, but of their parents as well.

Each Auxiliary Legislation Chairman will sponsor the contest in his own county (or Baltimore City). It is hoped that, in addition to the $2,675.00 in national prizes, the Medical and Chirurgical Faculty will offer prizes at the State level, and that our own component auxiliaries will give county (or city) prizes.

We believe this contest can contribute importantly to the efforts to save quality medical care for the American people.

* Legislation Chairman.

DEFINITION OF HEALTH

W. W. BAUER, M.D.

"There have been many definitions of health, but the one I like best is that which defines health as a state of being in which the individual is capable of doing his daily work, of meeting obligations as they arise, and of having a reasonable amount of fun, with a reserve of energy always available to meet unforseen demands.

Such a concept of health does not demand bodily perfection . . . Is not the individual with crippled body but undaunted spirit a healthier human being than the spiritual weakling with a perfect physical body? Perhaps this aspect of health can best be summed up in the age-old dictum (slightly modified) that the truly healthy person has the courage to do something about conditions which can be remedied, the serenity to accept those which cannot, and the wisdom to know the difference."

From introduction to
AMA—BOOK OF HEALTH

SYMPOSIUM—THE RELATIONSHIP BETEEN INJURIES AND HEART DISEASE AND ITS SEQUELAE

Thursday, May 15, 1958 8ä00 p.m.
Osler Hall, Medical & Chirurgical Faculty Building, 1211 Cathedral Street, Baltimore 1, Maryland

PARTICIPANTS

DR. J. SHELDON EASTLAND, Presiding
The HON. EMORY NILES, Moderator
DR. PAUL DUDLEY WHITE, of Boston—*Medical Aspects*
L. W. FARINHOLT, JR., ESQ.—*Legal Aspects*

The Joint Committee of the Medical and Chirurgical Faculty of the State of Maryland, the Maryland State Bar Association and the Bar Association of Baltimore City has arranged this program.

* * * * * *

THE GERONTOLOGICAL SOCIETY

(Deadline for abstracts, July 1, 1958)

The Gerontological Society will hold its eleventh annual meeting at the Bellevue Stratford Hotel, Philadelphia, Pennsylvania, on November 6, 7 and 8, 1958.

Abstracts of papers for the program should be submitted by July 1st for consideration. They should be sent to the appropriate sub-chairmen of the Program Committee; These sub-chairmen are: Clinical Medicine: Dr. Ewald Busse, Duke University Hospital, Durham, N. C.; Biology: Dr. Morris Rockstein, Dept. of Physiology, New York University, 550 First Avenue, New York 16, N. Y.; Psychology: Dr. Ethel Shanas, National Opinion Research Center, 5711 S. Woodlawn Avenue, Chicago, Illinois; and Sociology: Dr. W. M. Beattie, Jr., Dept. of Sociology, Washington University, St. Louis, Mo.

Dr. Warren Andrew, Bowman Gray School of Medicine, Winston-Salem, North Carolina and Dr. Joseph T. Freeman, 1530 Locust Street, Philadelphia 2, Pennsylvania are Co-Chairmen.